Sequence Sequence Sequence Sequence

sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence

2, Appli 2, Appli 2, Appli 2, Appli 23, Appli 23, Appli 23, Appli 24, Appli 4, Appli 4, Appli 15, Appli 15, Appli 15, Appli 29, Appli 20, Appli 20, Appli 21, Appli 22, Appli 23, Appli 24, Appli 25, Appli 26, Appli 27, Appli 28, Appli 29, Appli 29, Appli 29, Appli 20, Appli 21, Appli 22, Appli 23, Appli 24, Appli 25, Appli 26, Appli 27, Appli 28, Appli 29, Appli 29, Appli 29, Appli 20, Appli 20, Appli 21, Appli 22, Appli 23, Appli 24, Appli 25, Appli 26, Appli 27, Appli 28, Appli 29, Appli 29, Appli 29, Appli 20, Appli 20, Appli 20, Appli 20, Appli 21, Appli 22, Appli 23, Appli 24, Appli 25, Appli 26, Appli 27, Appli 28, Appli 29, Appli 29, Appli 20, Appli 20

```
Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM protein - protein search, using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seq length:
seq length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-836-392-21
3822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       328717 seqs, 42310858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             December 14, 2003, 06:55:31 ; Search time 22 Seconds (without alignments)
1400.105 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Issued_Patents_AA:*

1: /cgm2_6/ptodata/2/iaa/5A_COMB.pep:*

1: /cgm2_6/ptodata/2/iaa/5B_COMB.pep:*

3: /cgm2_6/ptodata/2/iaa/6A_COMB.pep:*

4: /cgm2_6/ptodata/2/iaa/6B_COMB.pep:*

5: /cgm2_6/ptodata/2/iaa/PCTUS_COMB.pep:*

6: /cgm2_6/ptodata/2/iaa/backfiles1.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20000000000
      GenCore version (c) 1993 - 2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gapext 0
  US-09-345-473E-19
US-08-246-648-20
US-08-446-648-20
US-08-4492-723-2
PCT-US-95-04728-20
US-09-221-235-5
US-09-221-235-5
US-09-221-236-5
US-09-221-528-5
US-09-221-528-5
US-09-221-528-5
US-09-221-528-6
US-09-231-5378-7
US-08-469-5378-7
US-08-469-5378-70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      328717
                                                             sequence
seq
sequence
                                                                                                                                                                                                                                                                                                                                                                              sequence
sequence
sequence
sequence
sequence
sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description
                        Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
  19, Appl 20, Appl 20,
RESULT 2
US-09-886-319A-63
; Sequence 63, Application US/0
; Patent No. 6586185
; GENERAL INFORMATION:
; APPLICANT: Wolf, Eckard
; APPLICANT: Werner, Sabine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Hodge, Martin
TITLE OF INVENTION: NO. 6558903el Kinases and
FILE REFERENCE: 35800/183781
CURRENT APPLICATION NUMBER: US/09/345,473E
CURRENT FILING DATE: 1999-06-30
NUMBER OF SEQ ID NOS: 62
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 19
LENGTH: 394
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
US-09-345-473E-19
                                                                                                                                                                                                                            Ô
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-345-473E-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 19, Application Patent No. 6558903 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                             142
                                                                                                                                                                                                                                                                                                                                                                                                    111 -DVKEHINIKLSDYGISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYE 169
                                                                                                                                                                                           254 SFTNILDOL 262
                                                                                                                                                                                                                                   225 LALSVVSQM 233
                                                                                                                                                                                                                                                                                                                                                                                                                                              93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ű
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RHDPDEDISQTIENVRQEAKLFAMLKHPNIIALRGVCLKEPNLCLVMEFARGGPLNRVLS
                                                                                                                                                                                                                                                                             LLTGEVPFRGIDGLRVAYGVAMNKLALPIPSTCPEP---
                                                                                                                                                                                                                                                                                                                LLSGQRPALGHHQLQIA-----KKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRP 224
                                                                                                                                                                                                                                                                                                                                                             GDLSNKI-LKITDFGLAREWHRTTKMSAAGTYAWMAPEVIRASMFSKGSDVWSYGVLLWE
                                                                                                                                                                                                                                                                                                                                                                                                                                            ENARDSSFIPLGHMLTQKI----AYQIASGLAYLHKK---NIIFCDLKSDNILVWSL---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RHLRATDAMKNESEERQEASMLHALQHECIVALIGISIHE--LCEALELAPLSSLNTVLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7.2%; Score 275.5; DB 4; 31.3%; Pred. No. 9.2e-18; vative 42; Mismatches 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                821
821
795
8221
795
8221
795
822
822
843
843
843
                                                                                      US/09886319A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/09345473E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6558903el Kinases and Uses Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
```

Length 394;

37;

110 92

--FAKLMEDCWNPDPHSRP

Result

```
RESULT 3
US-08-222-616-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-886-319A-63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20, Application US/08222616 Patent No. 5635177 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: FastSEQ for Windows Version 4.
SEQ ID NO 63
LENGTH: 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Regenbogen, Johannes
APPLICANT: Goppelt; Andreas
TITLE OF INVENTION: Use of Polypeptides or Nucleic Acids for
TITLE OF INVENTION: Use of Polypeptides or Treatment of Skin Disorders and Wound
TITLE OF INVENTION: the Diagnosis or Treatment of Skin Disorders and Wound
TITLE OF INVENTION: Healing and for the Identification of Pharmacologically
TITLE OF INVENTION: Active Substances
FILE REFERENCE: 50125/014002
CURRENT FALING DATE: 2001-06-20
PRIOR APPLICATION NUMBER: US 60/222,081
PRIOR PILING DATE: 2000-08-01
PRIOR PILING DATE: 2000-08-01
PRIOR FILING DATE: 2000-08-01
PRIOR FILING DATE: 2000-06-20
RUMBER OF SED ID NOS: 84
           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/222,616
FILING DATE: 4-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Mus musculus
                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Tsai, Siao Ping
APPLICANT: Wood, William I.
TITLE OF INVENTION: PROTEIN TYROSINE KINASE AGONIST
TITLE OF INVENTION: ANTIBODIES
                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity hes 77; Conserv
                                                                                                                                                                                                                                          STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       663 --- VRFSLDVAAGMLYLESKNCIHRDLAARNCL---- VGENNTLKISDFGMSRQ--EDG 712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          134 ALGVEGTPG-----YQAPEIRPRIVYDEKVDMFSYGMVLYELLS-GQRPALGHHQLQI 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74 MLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKLSDYGISRQSFHEG 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16 EFRQEASMIHALQHPCIVALIGISI--HPLCFALELAPLSSLNTVLSENARDSSFIPIGH
                                                                                                                                                                                                      94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REQVERGYRMSAPQNCPEEV-----FTIMMKCWDYKPENRPKFNDLHKELTVIKKM 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AKKLSKGIRPVLGQ--PEEVQFRRLQALMMECWDTKPEKRP-----LALSVVSQM 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KFLQEAKILKQYDHPNIVKLIGVCTQRQPVYIIMELVPGGDFLTFLRKRKDELKLKQL--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 --GVYSSSGLKQIPIKWTAPEALNYGRYSSESDVWSFGILLWETFSLGVCPYPGMTNQQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Halle, Jorn-Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bennett, Brian D.
Goeddel, David
                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matthews, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                 Genentech,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                James M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6.4%; Score 244.5; DB 32.6%; Pred. No. 3e-14;
                                        US/08/222,616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        37; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-222-616-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-446-648-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20, Application US/08446648 Patent No. 6331302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb:
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                 STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                 DDRESSEE:
                                                                                                                                                                                                                                                                                                               E OF INVENTION: PROTEIN TYROSINE KINASE AGONIST ANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION:
                                                                                                                                     94080
                                                                                                                                                                              California
                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                    Tsai, Siao Ping
Wood, William I
                                                                                                                                                                                                                                                                                                                                                                                                                          Bennett, Brian D.
Goeddel, David
                                                                                                                                                                                                                                                                                                                                                                               Matthews, William
                                                                                                                                                                                                                                                                                                                                                                                                       Lee, James M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genentech, Inc
```

Genentech, Inc.

1.44 Mb floppy disk

Ş B Ś В

망

```
TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 505 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US
APPLICATION NUMBER: 22-TAN-1993
FILING DATE: 22-TAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/826
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 82
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                          / Match 6.4%;
Local Similarity 30.5%;
hes 75; Conservative 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER:
                                                                                     437 MTGAQVIQMLAQNYR--LPQPSNCP-QQFYNIMLECWNAEPKER-
                                                                                                                             180 HHOLOIAKKLSKGIRPVLGOPEEVOFRRLOALMMECWDTKPEKRPLALSVVSQMKDPTFA 239
                                                                                                                                                                             381 VDNEDIYESRHEIKLPVKWT----APEAIRSNKFSIKSDVWSFGILLYEIITYGKMPYSG
                                                                                                                                                                                                                                                                  327 -HLTQQVDMAAQVASGMAYLESRNYIHRDLAARNVL-----VGEHNIYKVADFGLARVFK 380
482 TLRWKL 487
                                          240 TFMYEL 245
                                                                                                                                                                                                                                                                                                                                                            272 NDFLREAQIMKNLRHPKLIQLYAVCTLEDPIYIITELMRHGSLQEYL-QNDTGSKI----
                                                                                                                                                                                                                                                                                                               73 HMLTOKI--AYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKLSDYGISR---
                                                                                                                                                                                                                                                                                                                                                                                                       15 SEFRQEASMLHALQHPCIVALIGISI--HPLCFALELAPLSSLNTVLSENARDSSFIPLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    amino acid
                                                                                                                                                                                                                          -----QSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLS-GQRPALG 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lee, Wendy M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07/826935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCT/US93/00586
                                                                                                                                                                                                                                                                                                                                                                                                                                                    49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 243.5;
Pred. No. 1.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                               L.7e-14;
hes 77;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 505;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                    45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                          PTFE
                                                                                          481
                                                                                                                                                                                 436
                                                                                                                                                                                                                                                                                                                    127
                                                                                                                                                                                                                                                                                                                                                                                                         72
```

```
GENERAL INFORMATION:

APPLICANT: Liu, Edison T.

APPLICANT: Craven, Rolf J.

APPLICANT: Cance, William G.

TITLE OF INVENTION: NUCLEAR TYROSINE KINASE RAF

NUMBER OF SEQUENCES: 13

CORRESPONDENCE ADDRESS:

ADDRESSEE: Bell, Seltzer, Park & Gibson

STREET: PO Box 34009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 5
US-08-492-723-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-446-648-20
                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2, Application US/08492723 Patent No. 6531296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Lee, Wendy M.
REGISTRATION NUMBER: 40,378
REFERENCE/DOCKET NUMBER: P082
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                      STREET: PO DOG.
STREET: Charlotte
CITY: Charlotte
STATE: No. 6531296th Carolina
COUNTRY: USA
                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FOC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 505 amino acids
TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/2:
FILING DATE: 04-APR-1994
ATTORNEY/AGENT INFORMATION:
TTORNEY/AGENT INFORMATION
                FILING DATE:
CLASSIFICATION:
                                                    APPLICATION NUMBER: US/08/492,723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELBFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                482 TLRWKL 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180 HHQLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKDPTFA 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  381 VDNEDIYESRHEIKLPVKWT----APEAIRSNKFSIKSDVWSFGILLYEIITYGKMPYSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    272 NDFLRÉAQIMKNÍRHÞKLIQÍYAVCTLEDÞIYIITEÍMRHGSÍQEYÍ-QNDTGSKI----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73 HMLTQKI--AYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKLSDYGISR---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15 SEFRQEASMLHALQHPCIVALIGISI--HPLCFALELAPLSSLNTVLSENARDSSFIPLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MTGAQVIQMLAQNYR--LPQPSNCP-QQFYNIMLECWNAEPKER---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----QSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLS-GQRPALG 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -HLTQQVDMAAQVASGMAYLESRNYIHRDLAARNVL-----VGEHNIYKVADFGLARVFK 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TEMYEL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          415/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08/222616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US/08/446,648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P0821P3PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 243.5; DB 4
Pred. No. 1.7e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 4; Length 505;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                77;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---PTFE 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
```

```
RESULT 6
PCT-US95-04228-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-492-723-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20, Application PC/TUS9504228 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local (
                                                                                                                                                                                   COUNTRY: USA

ZOUNTER 94080

COMPUTER READABLE FORM:

MEDIUM TYPE: 5.25 inch, 360 Kb fl

COMPUTER: IBM PC compatible

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: patin (Genentech)

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 919-881-3175
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/222616
FILING DATE: 04-APR-1994
ATTORNEY/AGENT INFORMATION:
NAME: Wendy M. Lee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Sibley, Kenneth D.
REGISTON NUMBER: 31.665
REFERENCE/DOCKET NUMBER: 54
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919-420-2200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Lee, James M.
APPLICANT: Matthews, William
APPLICANT: Tsai, Sio Ping
APPLICANT: Wood, William I.
TITLE OF INVENTION: PROTEIN TYROSINE KINASE AGONIST ANTIBODIES
NUMBER OF SEQUENCES: 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: protein
                                                                                                                  CLASSIFICATION:
                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       482 TLRWKL 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180 HHQLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKDPTFA 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 437 MTGAQVIQMLAQNYR--LPQPSNCP-QQFYNIMLECWNAEPKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             381 VDNEDIYESRHEIKLPVKWT----APEAIRSNKFSIKSDVWSFGILLYEIITYGKMPYSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   272 NDFLREAQIMKNLRHPKLIQLYAVCTLEDPIYIITELMRHGSLQEYL-QNDTGSKI----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240 TEMYEL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      327 -HLTQQVDMAAQVASGMAYLESRNYIHRDLAARNVL-----VGEHNIYKVADFGLARVFK 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73 HMLTQKI--AYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKLSDYGISR---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15 SEFRQEASMLHALQHPCIVALIGISI -- HPLCFALELAPLSSLNTVLSENARDSSFIPLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----QSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLS-GQRPALG 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    505 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genentech, Inc.
Bennett, Brian D.
Goeddel, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6.4%; Score 243.5; DB 4
30.5%; Fred. No. 1.7e-14;
                                                                                                                                                                    PCT/US95/04228
                                                                                                                                                                                                                                                                                 360 Kb floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5470-121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 505;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               45;
```

326 72

```
맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 7
US-09-221-235-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
밁
                                       S
                                                                                                                                       Ś
                                                                                                                                                                                               В
                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCT-US95-04228-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 20
SEQUENCE CHARACTERISTICS:
LENGTH: 505 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: ACTON, SUSAN
TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC ACID MOLECULES AND USES THEREFOR
FILE REFERENCE: MNI-050
CURRENT FILING DATE: 1998-12-28
CURRENT FILING DATE: 1998-12-28
EARLIER APPLICATION NUMBER: 09/163,115
EARLIER APPLICATION NUMBER: 09/163,115
EARLIER FILING DATE:
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PATEBILING DATE:
NUMBER: PATEBILING DATE:
NUMBER: PATEBILING DATE: 15
SOFTWARE: PATEBILING DATE: 15
SOFTWARE: PATEBILING DATE: 15
SOFTWARE: PATEBILING DATE: 15
                                                                                                                                                                                                                                                                                            Query Match 6.4%; Score 243; DB 3; Length 455
Best Local Similarity 27.9%; Pred. No. 1.5e-14;
Matches 69; Conservative 52; Mismatches 100; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 5, Application US/09221235 Patent No. 6043040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 6.4%; Score 243.5; DB 5; Best Local Similarity 30.5%; Pred. No. 1.7e-14; Matches 75; Conservative 49; Mismatches 77;
                                                                                                                                                                                                                                                                                                                                                                                                    -09-221-235-5
                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 00,000
REFERENCE/DOCKET NUMBER: 82
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-1994
TELEFAX: 415/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ENGTH: 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
TOPOLOGY: linear
154
                                                                                               101
                                          125 ISROSFHEGALGVEGTPGYQAPEIRFRIVYDBKVDMFSYGMVLYELLSGQRPALGHHQLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 482 TLRWKL 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240 TEMYEL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    437 MTGAQVIQMLAQNYR--LPQPSNCP-QQFYNIMLECWNAEPKER--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   381 VDNEDIYESRHEIKLPVKWT----APEAIRSNKFSIKSDVWSFGILLYEIITYGKMPYSG 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128 -----QSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLS-GQRPALG 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      272 NDFLREAQIMKNLRHPKLIQLYAVCTLEDPIYIITELMRHGSLQEYL-QNDTGSKI----
                                                                                                                                             68 FIPLGHMLTQKIAYQIASGLAYLHKK---NIIFCDLKSDNILVWSLDVKEHINIKLSDYG 124
                                                                                                                                                                                             43 AVKKLLKIEKEAEILSVLSHRNIIQFYGVILEPPNYGIVTEYASLGSLYDYINSNR--SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73 HMLTQKI--AYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKBHINIKLSDYGISR--- 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15 SEFRQEASMLHALQHPCIVALIGISI--HPLCFALELAPLSSLNTVLSENARDSSFIPLG
                                                                                                                                                                                                                                             10 AMKNESEFRQEASMLHALQHPCIVALIGISIHPLCFAL--ELAPLSSLNTVLSENARDSS
                                                                                               EMDMDHIMTW--ATDVAKGMHYLHMEAPVKVIHRDLKSRNVVIAADGV---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HHQLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKDPTFA 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -HLTQQVDMAAQVASGMAYLESRNYIHRDLAARNVL-----VGEHNIYKVADFGLARVFK 380
ASRFHNHTTHMSLVGTFPWMAPEVIQSLPVSETCDTYSYGVVLWEMLTREVPFKGLEGLQ 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             821P3PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 505;
                                                                                                                                                                                                                                                                                               Indels 26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -PTFE 481
                                             184
                                                                                             153
                                                                                                                                                                                               100
                                                                                                                                                                                                                                               67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72
```

```
В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT ; ORGANISM: Homo sapiens US-09-221-928-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 8
US-09-221-928-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                  US-09-221-527-5
                                                                                                                                                                                                                                                                                                                                       RESULT 9
                                                    CURRENT APPLICATION NUMBER: US/09/221,527
CURRENT FILING DATE: 1998-12-28
EARLIER APPLICATION NUMBER: 09/163,115
EARLIER FILING DATE:
NUMBER OF SEQ ID NOS: 15
SOFTWARE PATENTIN Ver. 2.0
SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 5
                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                          Sequence 5, Application US/09221527 Patent No. 6146832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 5, Application US/09221928
Patent No. 6121030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Acton, Susan
TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC ACID MOLECULES AND USES THEREFOR
FILE REFERENCE: MNI-050
CURRENT APPLICATION NUMBER: US/09/221,928
CURRENT FILING DATE: 1998-12-28
EARLIER APPLICATION NUMBER: 09/163,115
EARLIER APPLICATION NUMBER: 09/163,115
EARLIER FILING DATE:
                                                                                                                                                                                            APPLICANT: Acton, Susan
TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC
FILE REFERENCE: MNI-050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 15
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 455
                                      ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Match 6.4%; Score 243; DB 3; Length 455; Local Similarity 27.9%; Pred. No. 1.5e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   185 IAKKLSKGIRPVLGQPEEVQF-----RRLQALMMECWDTKPEKRPLALSVVSQMKDPTFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           154 ASRFHNHTTHMSLVGTFPWMAPEVIQSLPVSETCDTYSYGVVLWEMLTREVPFKGLEGLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101 EMDMDHIMIW--AIDVAKGMHYLHMEAPVKVIHRDLKSRNVVIAADGV-----LKICDFG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  214 VAWL------VVEKNERLTIPSSCPRSFAELLHQCWEADAKKRPSFKQIISILESMSND 266
                                                                                                                                                                                                                                                                                                                                                                                                                                      240 TEMYELC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      267 TSLPDKC 273
                                                                                                                                                                                                                                                                                                                                                                                                  267 TSLPDKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10 AMKNESEFRQEASMIHALQHPCIVALIGISIHPLCFAL--ELAPISSINTVLSENARDSS 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           68 FIPLGHMLTQKIAYQIASGLAYLHKK---NIIFCDLKSDNILVWSLDVKEHINIKLSDYG
                                      455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VAWL-----VVEKNERLTIPSSCPRSFAELLHQCWEADAKKRPSFKQIISILESMSND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AVKKLLKIEKĖAEILSVLSHRNIIQFYGVILEPPNYGIVTĖYASLGSLYDYINSNR--SE 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TEMYELO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IAKKLSKGIRPVLGQPEBVQF----RRLQALMMBCWDIKPBKRPLALSVVSQMKDPTFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGHHQLQ 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                  273
                                                                                                                                                                                                                                                                                                                                                                                                                                      246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 52; Mismatches 100;
                                                                                                                                                                                                                   ACID
                                                                                                                                                                                                                   MOLECULES AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26;
                                                                                                                                                                                                                       THEREFOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               124
```

```
Ş
                                                                                                                                        밁
                                                                                                                                                                      Ś
                              Ś
                                                                    망
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-221-236-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-221-527-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 5, Application US/09221236 Patent No. 6146841
                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                -09-221-236-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/221,236
CURRENT FILING DATE: 1998-12-28
EARLIER APPLICATION NUMBER: 09/163,115
EARLIER FILING DATE: 1998-09-29
NUMBER OF SEQ ID NOS: 15
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Acton, Susan TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC FILE REFERENCE: MNI-050
                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 455
                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
 267
                                                                    214
                                                                                                        185
                                                                                                                                        154
                                                                                                                                                                            125
                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101 EMDMDHIMTW--ATDVAKGMHYLHMEAPVKVIHRDLKSRNVVIAADGV-----LKICDFG 153
                                                                                                                                                                                                                                                  89
                                                                                                                                                                                                                                                                                    43
                                                                                                                                                                                                                                                                                                                      님
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43
                                                                                                                                                                                                                                                                                                                                                        <del>;</del> 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10 AMKNESEFRQEASMLHALQHPCIVALIGISIHPLCFAL--ELAPLSSLNTVLSENARDSS
                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                            EMDMDHIMTW--ATDVAKGMHYLHMEAPVKVIHRDLKSRNVVIAADGV-----LKICDFG 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGHHQLQ 184
TSLPDKC 273
                                                                    IAKKLSKGIRPVLGQPEEVQF-----RRLQALMMECWDTKPEKRPLALSVVSQMKDPTFA 239
                                                                                                                                        ASRFHNHTTHMSLVGTFPWMAPEVIQSLPVSETCDTYSYGVVLWEMLTREVPFKGLEGLQ
                                                                                                                                                                      ISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGHHQLQ 184
                                                                                                                                                                                                                                                                                  AVXKLLKIEKEAEILSVLSHRNIIQFYGVILEPPNYGIVTEYASLGSLYDYINSNR--SE 100
                                                                                                                                                                                                                                                                                                                    AMKNIFSBERQEASMIHAIQHPCIVALIGISIHPICFAL--ELAPISSINTVISENARDSS 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TSLPDKC 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TEMYELC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IAKKLSKGIRFVLGQPEEVQF-----RRLQALMMECWDTKPEKRPLALSVVSQMKDPTFA 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ASREHNHTTHMSLVGTFPWMAPEVIQSLPVSETCDTYSYGVVLWEMLTREVPFKGLEGLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AVKKLLKIEKEAEILSVLSHRNIIOFYGVILEPPNYGIVTEYASLGSLYDYINSNR--SE 100
                                  TFMYELC 246
                                                                                                                                                                                                                                              FIPLGHMLTQKIAYQIASGLAYLHKK---NIIFCDLKSDNILVWSLDVKEHINIKLSDYG 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VAWL------VVEKNERLTIPSSCPRSFAELLHQCWEADAKKRPSFKQIISILESMSND 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FIPLGHMLTQKIAYQIASGLAYLHKK---NIIFCDLKSDNILVWSLDVKEHINIKLSDYG
                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6.4%; Score 243; DB 3; I
27.9%; Pred. No. 1.5e-14;
tive 52; Mismatches 100;
                                                                                                                                                                                                                                                                                                                                                                       6.4%; Score 243; DB 3;
27.9%; Pred. No. 1.5e-14;
                                                                                                                                                                                                                                                                                                                                                        52;
                                                                                                                                                                                                                                                                                                                                                        Mismatches 100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACID MOLECULES AND USES THEREFOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 3; Length 455
                                                                                                                                                                                                                                                                                                                                                                                        Length 455
                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                        213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 67
```

RESULT 11

Ş

FIPLGHMLTQKIAYQIASGLAYLHKK---NIIFCDLKSDNILVWSLDVKEHINIKLSDYG

```
Ś
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                               ; ORGANISM: Homo sapiens
US-09-221-245-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-221-245-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-221-416-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-221-416-5
                                                                                                                                                                                                                    SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/221,416
CURRENT FILING DATE: 1998-12-28
EARLIER REPLICATION NUMBER: 09/163,115
EARLIER FILING DATE: 1998-09-29
NUMBER OF SEQ ID NOS: 15
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 5, Application US/09221245 Patent No. 6180358
                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequence 5, Application US/09221416 Patent No. 6153417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/221,245
CURRENT FILING DATE: 1998-12-28
EARLIER APPLICATION NUMBER: US 09/163,115
EARLIER FILING DATE: 1998-09-29
NUMBER OF SEQ ID NOS: 15
                                                                                                                                                                                                                                                                                                                                                APPLICANT: Acton, Susan
TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC ACID MOLECULES AND USES THEREFOR
FILE REFERENCE: MNI-050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Acton, Susan
TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC
FILE REFERENCE: MNI-050
                                                                                                                                                                                                                                         SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                    TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 455
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101 EMDMDHIMTW--ATDVAKGMHYLHMEAPVKVIHRDLKSRNVVIAADGV-----LKICDFG
 43
                                    10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          68 FIPLGHMLTQKIAYQIASGLAYLHKK---NIIFCDLKSDNILVWSLDVKEHINIKLSDYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10 AMKNESEFRQEASMLHALQHPCIVALIGISIHPLCFAL--ELAPLSSLNTVLSENARDSS 67
                                                                                                                                                                                                    455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l Similarity 27.9 69; Conservative
                                                                                           Similarity
AVKKLLKIEKEAEILSVLSHRNIIOFYGVILEPPNYGIVTEYASLGSLYDYINSNR--SE
                                    AMKNESEFROEASMIHALOHPCIVALIGISIHPLCFAL--ELAPISSINTVLSENARDSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TSLPDKC 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TEMYELO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VAWL - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IAKKLSKGIRPVLGQPEBVQF-----RRLQALMMECWDTKPEKRPLALSVVSQMKDPTFA 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ASREHNHTTHMSLVGTEPWMAPEVIQSLPVSETCDTYSYGVVLWEMLTREVPFKGLEGLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGHHQLQ 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AVKKLLKIEKEAEILSVLSHRNIIQFYGVILEPPNYGIVTEYASLGSLYDYINSNR--SE
                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6.4%; but
27.9%; Pre
27.9% 52;
                                                                      6.4%; Score 243; DB 3;
27.9%; Pred. No. 1.5e-14;
ative 52; Mismatches 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VVEKNERLTIPSSCPRSFAELLHQCWEADAKKRPSFKQIISILESMSND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 243; DB 3;
Pred. No. 1.5e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACID MOLECULES AND USES THEREFOR
                                                                         100;
                                                                                                         Length 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 455;
                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                       26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26;
                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                      67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            124
```

Ş 밁 Ş 맑 S

맑

```
RESULT 14
US-09-221-528-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-163-115-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Acton, Susan
APPLICANT: Acton, NOVEL CSAPK-1 NUCLEIC ACID MOLECULES AND USES THEREFOR
TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC ACID MOLECULES AND USES THEREFOR
FILE REFERENCE: MNI-050
CURRENT APPLICATION NUMBER: US/09/163,115A
CURRENT FILING DATE: 1998-09-29
NUMBER OF SEQ ID NOS: 15
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 5.
                                                                                                                                                                             Sequence 5, Application US/09221528
Patent No. 6190874
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 5, Application US/09163115A Patent No. 6183962
    APPLICANT: Acton, Susan
TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC ACID MOLECULES AND
FILE REFERENCE: NUI-050
CURRENT APPLICATION NUMBER: US/09/221,528
CURRENT FILING DATE: 1998-12-28
EARLIER APPLICATION NUMBER: 09/163,115
EARLIER FILING DATE: 1998-09-29
NUMBER OF SEQ ID NOS: 15
NUMBER OF SEQ ID NOS: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -09-163-115-5
SOFTWARE: Patentin Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          y Match
6.4%; Score 243; DB 3; Length 455
Local Similarity 27.9%; Pred. No. 1.5e-14;
hes 69; Conservative 52; Mismatches 100; Indels
                                                                                                                                                                                                                                                                                                                              267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                                    240 TEMYELC 246
                                                                                                                                                                                                                                                                                                                                                                                                             214 VAWL------VVEKNERLTIPSSCPRSFAELLHQCWEADAKKRPSFKQIISILESMSND
                                                                                                                                                                                                                                                                                                                                                                                                                                                   185 IAKKLSKGIRFVLGQPEEVQF-----RLQALMMECWDTKPEKRPLALSVVSQMKDPTFA 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             154 ASRFHNHTTHMSLVGTFPWMAPEVIQSLPVSETCDTYSYGVVLWEMLTREVPFKGLEGLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    125 ISROSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGHHQLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101 EMDMDHIMIW--ATDVAKGMHYLHMEAPVKVIHRDLKSRNVVIAADGV-----LKICDFG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240 TEMYELC 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   185 IAKKLSKGIRPVLGQPEEVQF-----RRLQALMMBCWDTKPEKRPLALSVVSQMKDPTFA 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    125 ISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGHHQLQ 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 AMKNESEFRQEASMIHALQHPCIVALIGISIHPLCFAL - ELAPLSSINTVLSENARDSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FIPLGHMLTQKIAYQIASGLAYLHKK---NIIFCDLKSDNILVWSLDVKEHINIKLSDYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AVKKLLKIEKEAEILSVLSHRNIIOFYGVILEPPNYGIVTEYASLGSLYDYINSNR--SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VAWL------VVEKNERLTIPSSCPRSFAELLHQCWEADAKKRPSFKQIISILESMSND 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TSLPDKC 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASRFHNHTTHMSLVGTFPWMAPEVIQSLPVSETCDTYSYGVVLWEMLTREVPFKGLEGLQ
                                                                                                                                                                                                                                                                                                                              TSLPDKC
                                                                                                                                                                                                                                                                                                                              273
                                                                                                                                            USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            153
                                                                                                                                                                                                                                                                                                                                                                                                                                        **ILE REFERENCE: MNI-050
CURRENT APPLICATION NUMBER: US/09/593,553
CURRENT FILING DATE: 2000-06-14
PRIOR APPLICATION NUMBER: 09/163,115
PRIOR FILING DATE: 1998-09-28
NUMBER OF SEQ ID NOS: 15
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 5
LENGTH: 455
TYPE: PRT
ORGANISM: Homo sapiens
US-09-593-553-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
US-09-593-553-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
               Ś
                                                         밁
                                                                                              Ş
                                                                                                                                        맑
                                                                                                                                                                         S
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-221-528-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 5, Application US/09593553 Patent No. 6200770 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 5
LENGTH: 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 6.4%;
Best Local Similarity 27.9%;
Matches 69; Conservative 5:
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101
                 240 TEMYELC
                                                                                                                                          154
                                                                                                                                                                                                                           101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   267
                                                         214 VAWL------VVEKNERLTIPSSCPRSFAELLHQCWEADAKKRPSFKQIISILESMSND
                                                                                                                                                                             43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43
                                                                                                                                                                                                                                                               68 FIPLGHMLTQKIAYQIASGLAYLHKK---NIIFCDLKSDNILVWSLDVKEHINIKLSDYG
                                                                                                                                                                                                                                                                                                                                                  10 AMKNESEFRQEASMIHALQHPCIVALIGISIHPLCFAL--ELAPISSINTVLSENARDSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10 AMKNESEFRQEASMLHALQHPCIVALIGISIHPLCFAL -- ELAPLSSLNTVLSENARDSS
                                                                                                                                                                                                                                                                                                                                                                                            69;
                                                                                                                                                                                                                                                                                                        AVKKLLKIEKEAEILSVLSHRNIIQFYGVILEPPNYGIVTEYASLGSLYDYINSNR--SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TSLPDKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VAWL-----VVEKNERLTIPSSCPRSFAELLHQCWEADAKKRPSFKQIISILESMSND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMDMDHIMTW--ATDVAKGMHYLHMEAPVKVIHRDLKSRNVVIAADGV-----LKICDFG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FIPLGHMLTQKIAYQIASGLAYLHKK----NIIFCDLKSDNILVWSLDVKBHINIKLSDYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AVKKLLKIEKEAEILSVLSHRNIIQFYGVILEPPNYGIVTEYASLGSLYDYINSNR--SE
                                                                                                                                                                                                                           EMDMDHIMTW--ATDVAKGMHYLHMEAPVKVIHRDLKSRNVVIAADGV-----LKICDFG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGHHQLQ 184
                                                                                                                                          ASRPHNHTTHMSLVGTFPWMAPEVIQSLPVSETCDTYSYGVVLWEMLTREVPFKGLEGLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IAKKLSKGIRPVLGQPEEVQF----RRLQALMMECWDTKPEKRPLALSVVSQMKDPTFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASRFHNHTTHMSLVGTFPWMAPEVIQSLPVSETCDTYSYGVVLWEMLTREVPFKGLEGLQ
                                                                                                  IAKKLSKGIRPVLGQPEEVQF-----RRLQALMMECWDTKPEKRPLALSVVSQMKDPTFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TEMYELC
..
                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246
                                                                                                                                                                                                                                                                                                                                                                                          6.4%; Score 243; DB 3; ]
27.9%; Pred. No. 1.5e-14;
ative 52; Mismatches 100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Score 243; DB 3; ; Pred. No. 1.5e-14; 52; Mismatches 100;
                                                                                                                                                                                                                                                                                                                                                                                                                               Length 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 455
                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26;
                                                                                                                                                                                                                                                                                                                                                                                            26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THEREFOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100
```

266 239 213 153 124 67

8 밁 Ś 밁 5

밁 S 맑

망

Search completed: December 14, 2003, 07:21:01 Job time : 23 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                     3574.
3574.
                                                      2523
335.5
327.5
327.5
327.5
275.5
275.5
271
                                                                                                                                                                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          seq length: 0
seq length: 2000000000
                                                    Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-836-392-21
3822
1 MLRHLRATDAMKNFSBFRQE......IFYQSYBELGRLEACTRKRR 728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 December 14, 2003, 07:15:16; Search time 36 Seconds (without alignments) 3761.003 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BLOSUM62
Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   684280 seqs, 185983659 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cgn2_6/ptodata/1/pubpaa/USO7_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO6_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO6_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO9A_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Published_Applications_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Copyright
                                                                                                                                                                                                                                                                                                                                                                                                  Length
       1987
2013
2014
2040
5010
9101
911
1818
1824
1824
1824
1824
1097
                                                                                                                                                                                                                                                                                                                                                                                                     멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 5.1.6 (c) 1993 - 2003 Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gapext 0.5
       US-09-836-392-21
US-10-112-382-6
US-10-112-382-8
US-10-112-382-8
US-10-112-382-8
US-10-115-482-48
US-10-115-482-48
US-10-115-482-50
US-10-115-687A-2
US-10-315-687A-2
                                                                                                                                                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ltd.
                  Sequence 21, Appl
Sequence 6, Appli
Sequence 2, Appli
Sequence 8, Appli
Sequence 4, Appli
Sequence 48, Appl
Sequence 48, Appl
Sequence 50, Appl
Sequence 50, Appli
Sequence 5, Appli
Sequence 19, Appli
Sequence 19, Appli
Sequence 19, Appli
Sequence 19, Appli
Sequence 11, Appli
Sequence 14, Appli
Sequence 14, Appli
Sequence 14, Appli
Sequence 14, Appli
                                                                                                                                                                                                                                                                                                                                                                                                Description
                                       δ
                                                                                                밁
                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-836-392-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 21, Application US/09836392
Patent No. US20020173458A1
```

٠	45	44	43	42	41	40	39	38	37	36	LJ U	3 4	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
	S	ω	w	238	39.	40.		41.	4			4	Δ.	243.5				4			46.	46.	46.	47.	47.	47.	50.	60.	N	σ.
				6.2	•	•	•							٠	6.4	٠	٠	6.4											6.9	
	821	263	425	937	765	349	765	765	257	850	765	455	455	505	505	505	505	257	823	765	765	765	765	765	765	765	765	847	1036	1036
	12	10	φ	10	12	15	12	12	11	10	12	12	9	片	10	10	9	12	12	12	12	12	12	12	12	12	12	14	14	12
	0-171-404	40-704-	9-828-313-2	-974-298-1	10-128-174-3	10-106-698-6	10-128-174-4	10-128-174-	09-823-187-4	09-904-389-2	10-128-174-4	10-094-749-	9-757-982-	09-977-261-	09-977-2	09-982-610-	9-977-269-	-09-863-776-4	-376-564-6	-10-128-174-	-10-128-174-4	-10-128-174-3	-10-128-174-3	-10-128-174-4	-10-128-174-3	-10-128-174-	-10-128-174-	-10-143-133-	-10-014-8	0-354-358-
	equence 48, Ap	equence 5,	29, Appl	e 129, A	equence 34, App	634	40,	Sequence 38, Appl	46	N N	41, App		5, Appli	σ,	6, Appl	ce 20, App	quence 6, 1	equence 42,	equence 63,	equence 43,	equence 42,	equence 39,	equence 37,	quence 44,	equence 35,	equence 3,	e 36,	equence 2,	equence 2	4

ALIGNMENTS

```
맑
                                                                                                                                                                                                                                                                                                          ; TYPE: PRT; ORGANISM: Homo sapiens US-09-836-392-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Ruben et al.
TITLE OF INVENTION: Protein Tyrosine Kinase Receptor Polynucleotides, Polypept.
TITLE OF INVENTION: Antibodies
FILE REFERENCE: PT020P1
CURRENT FILING DATE: 2001-04-18
PRIOR APPLICATION NUMBER: CT7/US00/28066
PRIOR APPLICATION NUMBER: FCT/US00/28066
PRIOR APPLICATION NUMBER: 60/159,542
PRIOR FILING DATE: 1999-10-15
PRIOR APPLICATION NUMBER: 60/165,914
PRIOR APPLICATION NUMBER: 60/165,914
PRIOR APPLICATION NUMBER: 60/165,914
PRIOR FILING DATE: 1999-11-17
PRIOR APPLICATION NUMBER: 60/165,914
PRIOR FILING DATE: 1999-11-17
PRIOR APPLICATION NUMBER: 60/165,914
PRIOR FILING DATE: 1999-11-17
                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Ver.
SEQ ID NO 21
LENGTH: 728
                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/189,027 PRIOR FILING DATE: 2000-03-14
                                                                                                                                                                                                        728;
61
                                                                                                                                1 MLRHLRATDAMKNFSEFRQEASMLHALQHPCIVALIGISIHPLCFALELAPLSSLNTVLS 60
                                            ENARDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKL 120
ENARDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKL
                                                                                                                                                                                                      100.0%; S ilarity 100.0%; P Conservative 0;
                                                                                                                                                                                                      Score 3822; DB 10;
Pred. No. 6e-318;
); Mismatches 0;
                                                                                                                                                                                                                                                           DB 10;
                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                     Length 728;
                                                                                                                                                                                                        <u>.</u>
                                                                                                    60
                                                                                                                                                                                                        0
```

```
Sequence 6, Application US/10132382

Publication No. US20030045699A1

GENERAL INFORMATION:
APPLICANT: WEISS, BERTRAM
ITITLE OF INVENTION: MEMBRANE RECEPTORS FOR STEROIDS AND STEROLS
FILE REFERENCE: SCH-1811
CURRENT APPLICATION NUMBER: US/10/132,382
CURRENT FILING DATE: 2002-04-26
NUMBER OF SEQ ID NOS: 26
SOFTWARE: Patentin Ver: 2.1
SEQ ID NO 6
LENGTH: 1987
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
Š
                       밁
                                           Ş
                                                                                                                                                                                                                                                                                           RESULT 2
US-10-132-382-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문. 왕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                     Query Match
Best Local Similarity
Matches 687; Conserv
                         1300
                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                            199
                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
   61
                                                                                                                                                                                                                                                                                                                                                                                                                                 SDRSEHDLTPMDGETFSQHLQAVKILAVRDLIWVPRRGGDVIVIGLEKDSEAQRGRVIAV
                        MLRHLRATDAMKNFSEFRQEASMLHALQHPCIVALIGISIHPLCFALELAPLSSLNTVLS 1359
                                        MIRHIRATDAMKNFSEFRQEASMIHAIQHPCIVALIGISIHPICFALELAFISSINTVIS
                                                                                                                                                                                                                                                                                                                                         EACTRKER
                                                                                                                                                                                                                                                                                                                                                              EACTRICAR 728
                                                                                                                                                                                                                                                                                                                                                                                      LKARELTPHGVLVDAAVVAKDTVVCTFENENTEWCLAVWRGWGAREFDIFYQSYEELGRL
                                                                                                                                                                                                                                                                                                                                                                                                         LKARELTPHGVLVDAAVVAKDTVVCTFENENTEWCLAVWRGWGAREFDIFYQSYEELGRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ILIHQESLIDYCSMSSYSSSPPRQAARSPSSLPSSPASSSSVPFSTDCEDSDMLHTPGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ILIHQESLTDYCSMSSYSSSPPRQAARSPSSLPSSPASSSSVPFSTDCEDSDMLHTPGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPKVPEGDSIADVSIMYSEELGTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPKVPEGDSIADVSIMYSEELGTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SNGPGLLVIDCASLEICRRLEPYMAPSMVTSVVCSSEGRGEEVVWCLDDKANSLVMYHST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LQVQRSLMTATEDQKIYIYTLKGMCPLNTPQQALDTPAVVTCFLAVPVIKKNSYLVLAGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FMYELCCGKQTAFFSSQGQEYTVVFWDGKEESRNYTVVNTEKGLMEVQRMCCPGMKVSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HQLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKDPTFAT
 ENARDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SNGPGLLVIDCASLEICRRLEPYMAPSMVTSVVCSSEGRGEEVVWCLDDKANSLVMYHST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADGIVAVPPVVRGTPKDSCSYLCSHTANRSKFSIADEDARQNPYPVKAMEVVNSGSEVWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HQLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKDPTFAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SDYGISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SDYGISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADGLVAVFPVVRGTPKDSCSYLCSHTANRSKFSIADEDARQNPYPVKAMEVVNSGSEVWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FMYELCCGKQTAFFSSQGQEYTVVFWDGKEESRNYTVVNTEKGLMEVQRMCCPGMKVSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LQVQRSLWTATEDQKIYIYTLKGMCPLNTPQQALDTPAVVTCFLAVPVIKKNSYLVLAGL
                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                         728
                                                                               93.5%;
                                                                   Score 3574.5; DB 15
Pred. No. 4.4e-296;
0; Mismatches 1;
                                                                                           DB 15; Length 1987;
                                                                      Indels
                                                                     39; Gaps
                                              60
                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                   Ś
                                                                                                                                                                                                                                                                    RESULT 3
US-10-132-382-2
                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뮹
  片
                                                                                                                                                                                                                                                                                                                  뮍
                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                             US-10-132-382-2
                                              Query Match
Best Local S
Matches 687
   1326
                                                                                                                                                                                                                                                                                                                   1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1480
                                                                                                                                                                                                                                                                                                                                                              1921
                                                                                                                                                                                                                                                                                                                                                                                                            1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                    199
                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                              al Similarity
687; Conser
                       ۱.,
                                                                                                                                                                                                                                                                                                                   EACTRKE 1987
                                                                                                                                                                                                                                                                                                                                        EACTRKR
                                                                                                                                                                                                                                                                                                                                         727
```

```
뫄
                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: WEISS, BERTRAM
TITLE OF INVENTION: MEMBRANE RECEPTORS FOR STEROIDS AND STEROLS
FILE REFERENCE: SCH-L811
CURRENT APPLICATION NUMBER: US/10/132,382
CURRENT FILING DATE: 2002-04-26
NUMBER OF SEQ ID NOS: 26
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 2
LENGTH: 2013
TYPE: PRT
CRGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/10132382 Publication No. US20030045699A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1360
MLRHLRATDAMKNFSEFRQEASMLHALQHPCIVALIGISIHPLCFALELAPLSSLNTVLS
                     MLRHLRATDAMKNTSEFRQEASMLHALQHPCIVALIGISIHPLCFALELAPLSSLNTVLS 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LKARELTPHGVLVDAAVVAKDTVVCTFENENTEWCLAVWRGWGAREFDIFYQSYEELGRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPKVPEGDSIADVSIMYSEELGTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SNGPGILIVIDCASLEICRRLEPYMAPSMVTSVVCSSEGRGEEVVWCLDDKANSLYMYHST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LQVQRSLWTATE------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMYELCCGKQTAFFSSQGQEYTVVFWDGKEESRNYTVVNTEKGLMEVQRMCCPGMKVSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HQLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKDPTFAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HQLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKDPTFAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENARDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SDRSEHDLTPMDGETFSQHLQAVKILAVRDLIWVPRRGGDVIVIGLEKDSEAQRGRVIAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ILIHQESLTDYCSMSSYSSSPPRQAARSPSSLPSSPASSSSVPFSTDCEDSDMLHTPGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPKVPEGDSIADVSIMYSEELGTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADGLVAVFPVVRGTPKDSCSYLCSHTANRSKFSIADEDARQNPYPVKAMEVVNSGSEVWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOVORSIWTATEDOKIYIYTIKGMCPINTPOQALDTPAVVTCFLAVPVIKKNSYLVLAGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SDYGISRQSFHEGALGVEGTPGYQAPETRPRIVYDEKVDMFSYGMVLYELLSGQRPALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SDYGISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SDRSEHDLTPMDGETFSQHLQAVKILAVRDLIWVPRRGGDVIVIGLEKDSGAQRGRVIAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ILIHQESLTDYCSMSSYSSSPPRQAARSPSSLPSSPASSSSVPFSTDCEDSDMLHTPGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SNGPGLLVIDCASLEICRRLEPYMAPSMVTSVVCSSEGRGEEVVWCLDDKANSLVMYHST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADGIVAVFPVVRGTPKDSCSYLCSHTANRSKFSIADEDARQNPYPVKAMEVVNSGSEVWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FMYELCCGKQTAFFSSQGQEYTVVFWDGKEESRNYTVVNTEKGLMEVQRMCCPGMKVSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LKARELIPHGVLVDAAVVAKDTVVCTFENENTEWCLAVWRGWGAREFDIFYQSYEELGRL
                                                                                         Conservative
                                                                                                       93.5%;
                                                                                    Score 3574.5;
Pred. No. 4.5e
0; Mismatches
                                                                                    0
                                                                                    :.5e-296;
ies 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ----NSYLVLAGL
                                                                                                                                  DB 15;
                                                                                                                                  Length
                                                                                         39;
                                                                                      Gaps
  1385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
```

```
US-10-132-882-8
| Sequence 8, Application US/10132382
| Publication No. US20030045699A1
| GENERAL INFORMATION:
| APPLICANT: WEISS, BERTRAM
| TITLE OF INVENTION: MEMBRANE RECEPTORS FOR
| FILE REFERENCE: SCH-1811
                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                     망
                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                             뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뮍
                                                                            US-10-132-382-8
                                                                                                          CURRENT APPLICATION NUMBER: US/10/132,382
CURRENT FILING DATE: 2002-04-26
NUMBER OF SEQ ID NOS: 26
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 8
LENGTH: 2014
TYPE: DEF
                                    Query Match
Best Local
                         Matches
                                                                                       TYPE: PRT
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                            1947
                                                                                                                                                                                                                                                                                                                                                                                                                               1887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1446
                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                         687;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
1 MLRHLRATDAMKNFSEFRQEASMLHALQHPCIVALIGISIHPLCFALELAPLSSLNTVLS
                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                           LKARELTPHGVLVDAAVVAKDTVVCTFENENTEWCLAVWRGWGAREFDIFYQGYBELGRL
                                                                                                                                                                                                                                                                                                                                                                                                                                         SDRSEHDLTPMDGETFSQHLQAVKILAVRDLIWVPRRGGDVIVIGLEKDSEAQRGRVIAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ILIHQESLTDYCSMSSYSSSPPRQAARSPSSLPSSPASSSSVPFSTDCEDSDMLHTPGAA
                                                                                                                                                                                                                                                                                                                                                                            LKARELTPHGVLVDAAVVAKDTVVCTFENENTEWCLAVWRGWGAREFDIFYQSYEELGRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPKVPEGDSIADVSIMYSEELGTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SNGPGLLVIDCASLEICRRLEPYMAPSMVTSVVCSSEGRGEEVVWCLLDDKANSLVMYHST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADGLVAVF PVVRGTPKDSCSYLCSHTANRSKF SI ADEDARQNPY PVKAMEVVNSGSEVWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HQLQIAKKLSKGIRPVLGQPEEVQFRRIQALMMECWDTKPEKRPLALSVVSQMKDPTFAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SDYGISRQSFHEGALGVEGTPGYQAPBIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ENARDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKL
                                                                                                                                                                                                                                                                                                                          EACTRKR 2013
                                                                                                                                                                                                                                                                                                                                                 EACTRER 727
                                                                                                                                                                                                                                                                                                                                                                                                                          SDRSEHDLTPMDGETFSQHLQAVKILAVRDLIWVPRRGGDVIVIGLEKDSGAQRGRVIAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ILIHQESLTDYCSMSSYSSSPPRQAARSPSSLPSSPASSSSVPFSTDCEDSDMLHTPGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPKVPEGDSIADVSIMYSEELGTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SNGPGLLVIDCASLEICRRLEPYMAPSMVTSVVCSSEGRGEEVVWCLDDKANSLVMYHST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADGLVAVFPVVRGTPKDSCSYLCSHTANRSKFSIADEDARQNPYPVKAMEVVNSGSEVWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LQVQRSLWTATE------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOVORSLWTATEDOKIYIYTLKGMCPLNTPQQALDTPAVVTCFLAVPVIKKNSYLVLAGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FMYELCCGKQTAFFSSQGQEYTVVFWDGKEESRNYTVVNTEKGLMEVQRMCCFGMKVSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FMYELCCGKQTAFFSSQGQEYTVVFWDGKEESRNYTVVNTEKGLMEVQRMCCPGMKVSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HOLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKDPTFAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SDYGISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENARDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKL
                         Conservative
                                   93.5%;
                       0
                     Score 3574.5; DB 15;
Pred. No. 4.5e-296;
0; Mismatches 1; I
                                                                                                                                                                                                        STEROIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----NSYLVLAGL
                        Indels
                                                                                                                                                                                                        AND
                                               Length
                                                                                                                                                                                                        STEROLS
                       39; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1886
 60
                                                                                                                                                                                                                                                                                                                                                                           2006
                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                            1946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
```

```
Sequence 4, Application US/10132382
; Publication No. US20030045699A1
; GENERAL INFORMATION:
   APPLICANT: WEISS, BERTRAM
   TITLE OF INVENTION: MEMBRANE RECEPTORS FOR STIFLE REFERENCE: SCH-181
; CURRENT APPLICATION UNMBER: US/10/132,382
; CURRENT FILING DATE: 2002-04-26
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; SEQ ID NO 4
; LENGTH: 2040
; TYPE: PAT
; ORGANISM: Homo sapiens
US-10-132-382-4
                                                                                                                                                                                                                                                                                                                                                       RESULT 5
US-10-132-382-4
Query Match 93.1
Best Local Similarity 94.1
Matches 687; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1948 LKARELTPHGVLVDAAVVAKDTVVCTFENENTEWCLAVWRGWGAREFDIFYQSYEELGRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SDRSEHDLTPMDGBTFSQHLQAVKILAVRDLIWVPRRGGDVIVIGLEKDSGAQRGRVIAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ILIHQESLTDYCSMSSYSSSPPRQAARSPSSLPSSPASSSSVPFSTDCEDSDMLHTPGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADGIVAVFFVVRGTPKDSCSYLCSHTANRSKFSIADEDARQNPYPVKAMEVVNSGSEVWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SDYGISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SDYGISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MLRHLRATDAMKNESEFRQEASMLHALQHPCIVALIGISIHPLCFALELAPLSSLNIVLS
                                                                                                                                                                                                                                                                                                                                                                                                                                EACTRKR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EACTRKR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LKARELTPHGVLVDAAVVAKDTVVCTFENENTEWCLAVWRGWGAREFDIFYQSYEELGRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SDRSEHDLTPMDGETFSQHLQAVKILAVRDLIWVPRRGGDVIVIGLEKDSEAQRGRVIAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPKVPEGDSIADVSIMYSEELGTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPKVPEGDSIADVSIMYSEELGTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SNGPGLLVIDCASLEICRRLEPYMAPSMVTSVVCSSEGRGEEVVWCLDDKANSLVMYHST 1767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SNGPGLLVIDCASLEICRRLEPYMAPSMVTSVVCSSEGRGEEVVWCLJDKANSLVMYHST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADGLVAVFPVVRGTPKDSCSYLCSHTANRSKFSIADEDARQNPYPVKAMEVVNSGSEVWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LQVQRSLWTATEDQKIYIYTLKGMCPLNTPQQALDTPAVVTCFLAVPVIKKNSYLVLAGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FMYELCCGKOTAFFSSQGQEYTVVFWDGKEESRNYTVVNTEKGLMEVQRMCCFGMKVSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FMYELCCGKQTAFFSSQGQEYTVVFWDGKEESRNYTVVNTEKGLMEVQRMCCPGMKVSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HQLQIAKKLSKGIRFVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKDPTFAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HOLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKDPTFAT
                                                                                                                                                                                                                                                                                                                                                                                                                                2014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  727
               93.5%;
Score 3574.5; DB 19
Pred. No. 4.6e-296;
0; Mismatches 1;
                                                                                                                                                                                                                                                            STEROIDS AND
                                 DB 15;
                                 Length 2040;
                                                                                                                                                                                                                                                              STEROLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----NSYLVLAGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
```

Indels

39;

Gaps

۲,

```
RESULT 6
US-10-094-749-1689
                                                                                                                                                                                                                                                                                                                                                                                                  멂
                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                              APPLICANT: ISOGAI,
APPLICANT: SUCTYAM
APPLICANT: OTSUKI,
APPLICANT: WAKAMATI
APPLICANT: SATO, H:
APPLICANT: ISHII, H:
APPLICANT: ISONO, H:
APPLICANT: HIO, YU
APPLICANT: HIO, YU
APPLICANT: NACAL, H
APPLICANT: NACAL, H
APPLICANT: IRIE, R
                                                                                                                                                                                                                      Sequence 1689, Application US/10094749
Publication No. US20030219741A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                    1974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1353
                                                                                                                                                                                                                                                                                                                                     2034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1413 ENARDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Н
                                                                                                             SUGIYAMA, TOMOYASU
OTSUKI, TETSUJI
WAKAMATSU, AI
SATO, HIROYUKI
ISHII, SHIZUKO
YAMAMOTO, JUN-ICHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SDYGISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MERHERATDAMKNESEERQEASMEHALQHPCIVALIGISIHPLCEALELAPESSENTVES
 HIO, YURI
OTSUKA, KAORU
NAGAI, KEIICHI
IRIE, RYOTARO
TAMECHIKA, ICHIRO
SEKI, NAOHIKO
                                                                                                                                                                                                                                                                                                                                                                                                                      LKARELTPHGVLVDAAVVAKDTVVCTFENENTEWCLAVWRGWGAREFDIFYQSYEELGRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SDRSEHDLTPMDGETFSQHLQAVKILAVRDLIWVPRRGGDVIVIGLEKDSEAQRGRVIAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SNGPGLLVIDCASLEICRRLEPYMAPSMYTSVVCSSEGRGEEVVWCLDDKANSLVMYHST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADGLVAVFPVVRGTPKDSCSYLCSHTANRSKFSIADEDARQNPYPVKAMEVVNSGSEVWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HQLQIAKKLSKGIRPVLGQPBBVQFRRLQALMMBCWDTKPBKRPLALSVVSQMKDPTFAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MLRHLRATDAMKNFSEFRQEASMLHALQHPCIVALIGISIHPLCFALELAPLSSLNTVLS
                                                                                                                                                                                                                                                                                                                                     EACTRKR
                                                                                                                                                                                                                                                                                                                                                                    EACTRKR 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ILIHQESLTDYCSMSSYSSSPPRQAARSPSSLPSSPASSSSVPFSTDCEDSDMLHTPGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ILIHQESLTDYCSMSSYSSSPPRQAARSPSSLPSSPASSSSVPFSTDCEDSDMLHTPGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPKVPEGDSIADVSIMYSEELGTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPKVPEGDSIADVSIMYSEELGTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SNGPGLLVIDCASLEICRRLEPYMAPSMVTSVVCSSEGRGEEVVWCLDDKANSLVMYHST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADGLVAVFPVVRGTPKDSCSYLCSHTANRSKFSIADEDARQNPYPVKAMEVVNSGSEVWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LQVQRSLWTATE----NSYLVLAGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FMYELCCGKQTAFFSSQGQEYTVVFWDGKEESRNYTVVNTEKGLMEVQRMCCFGMKVSCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FMYELCCGKQTAFFSSQGQEYTVVFWDGKEESRNYTVVNTEKGLMEVQRMCCFGMKVSCQ 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SDYGISROSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRPALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENARDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKL
                                                                                                                                                                                                                                                                                                                                                                                                    LKARELTPHGVLVDAAVVAKDTVVCTFENENTEWCLAVWRGWGAREFDIFYQSYEELGRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SDRSEHDLTPMDGETFSQHLQAVKILAVRDLIWVPRRGGDVIVIGLEKDSGAQRGRVIAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LQVQRSLWTATEDQKIYIYTLKGMCPLNTPQQALDTPAVVTCFLAVPVIKKNSYLVLAGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HQLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKDPTFAT
                                                                                              ISHII, SHIZUK
YAMAMOTO, JUN
ISONO, YUUKO
                                                                                                                                                                                                                                                                                                                                     2040
                                                                                                                                                                                                          TAKAO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1472
                                                                                                                                                                                                                                                                                                                                                                                                    2033
                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1412
RESULT 7

US-10-115-492-48

Sequence 48, Application US/10115482

Publication No. US20030212257A1

GENERAL INFORMATION:

APPLICANT: SPYtek, et al.

ITILE OF INVENTION: NOVEL HUMAN PROTEINS, PO

TITLE OF INVENTION: AND METHODS:

TITLE OF INVENTION: OF USING THE SAME

TITLE OF INVENTION OF USING THE SAME

TITLE OF INVENTION UNMEER: US/10/115,482

CURRENT APPLICATION NUMBER: 00/281,086

PRIOR APPLICATION UNMEER: 60/281,086

PRIOR APPLICATION UNMEER: 60/281,136

PRIOR APPLICATION UNMEER: 60/281,136

PRIOR APPLICATION UNMEER: 60/281,136

PRIOR APPLICATION UNMEER: 60/281,136

PRIOR APPLICATION UNMEER: 60/281,136
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                            γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 478
                                                                                                                                                                                                                                                                                                                      580
                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                   460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          220
                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
```

```
APPLICANT: YOSHIKAWA, TSUTOMU
APPLICANT: OTSUKA, MOTOYUKI
APPLICANT: NAGAHARI, KENJI
APPLICANT: NAGAHARI, KENJI
APPLICANT: MASUHO, YASUHIKO
TITLE OF INVENTION: NOVEL FULL-LENGTH cDNA
FILE REFERENCE: 084335/0160
CURRENT APPLICATION NUMBER: US/10/094,749
CURRENT FILING DATE: 2002-03-12
PRIOR APPLICATION NUMBER: 60/350,435
PRIOR APPLICATION NUMBER: 0920,435
PRIOR APPLICATION NUMBER: JP 2001-328381
PRIOR APPLICATION NUMBER: JP 2001-328381
PRIOR FILING DATE: 2001-09-14
NUMBER OF SEQ ID NOS: 3381
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 1689
LENGTH: 501
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; TYPE: PRT; ORGANISM: Homo sapiens US-10-094-749-1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     atch 66.0%; Score 2523; DB 12; cal Similarity 100.0%; Pred. No. 5e-207; 478; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    160 MFSYGMVLYELLSGQRPALGHHOLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MFSYGMVLYELLSGORPALGHHOLQIAKKLSKGIRÞVLGOPBEVOFRRLQALMMECWDTK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PEKRPLALSVVSQMKDPTFATFMYELCCGKQTAFFSSQGQEYTVVFWDGKEESRNYTVVN
                                                                                                                                                                                                                                        GEEVVWCLDDKANSLVMYHSTTYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPK 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TEKGLMEVQRMCCFGMKVSCQLQVQRSLWTATEDQXIXIXTLKGMCFLNTFQQALDTFAV
SSVPFSTDCEDSDMLHTPGAASDRSEHDLTPMDGETFSQHLQAVKILAVRDLIWVPRR
                                    SSVPFSTDCEDSDMLHTPGAASDRSEHDLTPMDGETFSQHLQAVKILAVRDLIWVPRR
                                                                                                      VPEGDSIADVSIMYSEELGTQILIHQESLTDYCSMSSYSSSPPRQAARSPSSLPSSPASS
                                                                                                                                                      VPEGDSIADVSIMYSEELGTQILIHQESLTDYCSMSSYSSSPPRQAARSPSSLPSSPASS
                                                                                                                                                                                                         GEEVVWCLDDKANSLVMYHSTTYQLCARYFCGVPSPLRDMFPVRPLDTEPPAASHTANPK
                                                                                                                                                                                                                                                                                                                    RONPYPVKAMEVVNSGSEVWYSNGPGLLVIDCASLEICRRLEPYMAPSMVTSVVCSSEGR
                                                                                                                                                                                                                                                                                                                                              RQNPYPVKAMEVVNSGSEVWYSNGPGLLVIDCASLEICRRLEPYMAPSMVTSVVCSSEGR
                                                                                                                                                                                                                                                                                                                                                                                                                          VTCFLAVPVIKKNSYLVLAGLADGLVAVFPVVRGTPKDSCSYLCSHTANRSKFSIADEDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VTCFLAVPVIKKNSYLVLAGLADGLVAVFPVVRGTPKDSCSYLCSHTANRSKFSIADEDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TEKGLMEVORMCCPGMKVSCOLOVORSLWTATEDOKIYIYTLKGMCPLNTPOOALDTPAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PEKRPLALSVVSQMKDPTFATFMYELCCGKQTAFFSSQGQEYTVVFWDGKEESRNYTVVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                   637
  478
                                                                                                        420
                                                                                                                                                           579
                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                          459
                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        219
```

POLYNUCLEOTIDES ENCODING THEM

```
멂
                                                                                                    Ś
                                                                                                                                                g
                                                                                                                                                                              δ
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -10-115-482-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 915
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/
FILING DATE: 2001-06-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 2001-05
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/282,020 FILING DATE: 2001-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/286,292 FILING DATE: 2001-04-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/285,890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/283,512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/281,863 FILING DATE: 2001-04-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/287,213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 2001-04-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/285,325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 2001-04-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/282,934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/281,906
FILING DATE: 2001-04-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            al Similarity 26.9
                                                                                                                                                  529
                                                                                                                                                                                                                            473
                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                              358
                                                                                                                                                                                                                                                                                                                                                                                                                                                  298 AVKI FNKHTSLRLLRÖELVVICHLHHPSLISLLAAGIR PRMLVMELASKGSLDRLLOODK 357
                                                                                                                                                                                                                                                                                                                                      124 GISROSFHEGALGVEGTPGYQAPEI-RPRIVYDEKVDMFSYGMVLYELL-SGORPALG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10 AMKNESE-----FRQEASMLHALQHPCIVALIGISIHPLCFALELAPLSSLNTVLSENA
                                                                                                                                                                                                                                                                                                                                                                                                              64 RDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKLSDY 123
                                                                                                                                                                                                                      FPNEFDELEIQGKLPDPVKEYGCAP----WPMVEKLIKQCLKENPQERPTSAQVFSQVFD
                                                                                                                                                                                                                                                                                                GIAQYCCRMGIKTSEGTPGFRAPEVARGNVIYNQQADVYSFGLLLYDILTTGGRIVEGLK
                                                                                                                                                                                                                                                                                                                                                                            AS-----LTRTLQHRIALHVADGLRYLHSAMIIYRDLKPHNVLLFTLYPNAAIIAKIADY
                                  PAVVTCELAVPVIK -- KNSYLVLAGLADGLVAVF 368
                                                                        GYTSEEVADSRILCLAL---VHLPVEKESWIVSGTQSGTLLVINTEDGKKRHTLEKMTDS
                                                                                                            KGLMEV --- QRMCCPGMKVSCQLQVQRSLW-- TATEDQKIYIYTLKGMCPLNTPQQALDT
                                                                                                                                              ILNSA---ELVCLTRRILLPKNVIVECMVATHHNSRNASIWLGCGHTDRGQLSFLDLNTE
                                                                                                                                                                                    PTFATFMYELCCGKQ-----TAFFSSQGQEYTVVFWDG----KEESRNYTVVNTE
                                                                                                                                                                                                                                                            ----HHQLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DATE:
-VTCLYCNSFSKQSKQKNFLLVGTADGKLAIF 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001-06-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001-05-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-05-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001-05-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001-05-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001-04-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001-04-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8.8%; Score 335.5; DB 12;
26.9%; Pred. No. 1.6e-19;
vative 76; Mismatches 159;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60/291,134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60/296,965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60/294,771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60/291,725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60/299,128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60/288,257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60/286,068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 12; Length 915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
```

RESULT

336 585 281 528 235

```
S
                                                                           밁
                                                                                                              Ş
                                                                                                                                                      뮍
                                                                                                                                                                                          S
                                                                                                                                                                                                                                   멼
                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                          ; TYPE: PRT; ORGANISM: Homo sapiens
US-10-115-482-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/115,482
CURRENT FILING DATE: 2002-04-05
PRIOR APPLICATION NUMBER: 60/281,086
-PRIOR FILING DATE: 2001-04-03
PRIOR APPLICATION NUMBER: 60/281,136
PRIOR FILING DATE: 2001-04-03
PRIOR PILING DATE: 2001-04-03
PRIOR PILING DATE: 2001-04-05
PRIOR FILING DATE: 2001-04-05
PRIOR FILING DATE: 2001-04-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-115-482-50
                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 50, Application US/10115482 Publication No. US20030212257A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                               Matches 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Spytek, et al.
TITLE OF INVENTION: NOVEL HUMAN PROTEINS, POLYNUCLEOTIDES ENCODING
TITLE OF INVENTION: ADM METHODS
TITLE OF INVENTION: OF USING THE SAME
PILE REFERENCE: 21404-322D
FILE REFERENCE: 21404-322D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 60/296,965
PRIOR FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: 60/299,128
PRIOR FILING DATE: 2001-06-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     NO 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/285,890 FILING DATE: 2001-04-23 APPLICATION NUMBER: 60/286,068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/281,906
FILING DATE: 2001-04-05
APPLICATION NUMBER: 60/282,934
FILING DATE: 2001-04-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/294,771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/282,020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/291,134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/288,257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2001-04-24
APPLICATION NUMBER: 60/286,292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/285,325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/283,512 FILING DATE: 2001-04-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/287,213
                                     180
                                                                           413
                                                                                                  124 GISROSFHEGALGVEGTPGYQAPEI-RPRIVYDEXVDMFSYGMVLYELL-SGQRPALG---
                                                                                                                                                        358 AS-----ITRTLQHRIALHVADGLRYLHSAMIIYRDLKPHNVLLFTLYPNAAIIAKIADY
                                                                                                                                                                                                                                   298 AVKIFNKHTSLRLLRQELVVLCHLHHPSLISLLAAGIRPRMLVMELASKGSLDRLLQQDK 357
                                                                                                                                                                                              64
                                                                                                                                                                                                                                                                   10 AMKNESE-----FRQEASMIHALQHPCIVALIGISIHPLCFALELAPLSSLNTVLSENA 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LING DATE: 2001-05-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LING DATE:
                                                                                                                                                                                                                                                                                                                                  Similarity
FPNEFDELEIQGKLPDPVKEYGCAP----WPMVEKLIKQCLKENPQERPTSAQVFDILNS
                                   ----HHQLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKD
                                                                           ĠĬĄQYCCRMĠIKTSEĠŦPĠFRĄPĖVĄRGNVIYNQQĄDVYŚFĞLLLYDILTTGGRIVEĞLK
                                                                                                                                                                                          RDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKLSDY
                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001-05-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001-04-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-04-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001-05-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001-04-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001-04-06
                                                                                                                                                                                                                                                                                                                                  26.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60/291,725
                                                                                                                                                                                                                                                                                                           75;
                                                                                                                                                                                                                                                                                                             Score 327.5; DB 1
Pred. No. 7.9e-19;
5; Mismatches 168
                                                                                                                                                                                                                                                                                                                                                    DB 12;
                                                                                                                                                                                                                                                                                                                 168;
                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                    911;
                                                                                                                                                                                                                                                                                                               43;
                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MHHI
                                                                                                                                                          412
                                                                                                                                                                                              123
                                     235
                                                                                                                   179
```

```
APPLICANT: Meyers, Rachel E.
APPLICANT: Millennium Pharmaceuticals, Inc.
APPLICANT: Millennium Pharmaceuticals, Inc.
APPLICANT: Millennium Pharmaceuticals, Inc.
APPLICATION: 39267, Human Kinase Famil
TITLE OF INVENTION: Uses Therefor
FILE REFERENCE: MP102-001PIRMM
CURRENT APPLICATION NUMBER: US/10/335,687A
CURRENT FILING DATE: 2003-01-02
PRIOR APPLICATION NUMBER: 60/345,773
PRIOR FILING DATE: 2002-01-02
NUMBER OF SEO ID NOS: 20
SOFTMARE: FastSEO for Windows Version 4.0
SEO ID NO 2
SEO ID NO 2
LENGTH: 1818
US-10-335-687A-5; Sequence 5, Application US/10335687A; Publication No. US20030166222A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 9
US-10-335-687A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                     S
                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                              멍
                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                   RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JS-10-335-687A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/10335687A Publication No. US20030166222A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                      1546 YCNSFSKQSKQKNFLLVGTADGKLAIF 1572
                                                                                                                                                                                                                                                                                                                   1432 AELVCLTRRILLPKNVIVECMVATHHNSRNASIWLGCGHTDRGQLSFLDLNTEGYTSEEV 1491
                                                                                                                                                                                                                                                                                                                                                                                                          1376 FPNEFDELEIQGKLPDPVKEYGCAP----WPMVEKLIKQCLKENPQERPTSAQVFDILNS 1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1316 GİAQYCCRMGIKTSEGTPGFRAPEVARGNVIYNQQADVYSFGLLLYDILTTGGRIVEGLK 1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1261 AS-----LTRTLQHRIALHVADGLRYLHSAMIIYRDLKPHNVLLFTLYPNAAIIAKIADY 1315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1201 AVKIFNKHTSLRLLRQELVVLCHLHHPSLISLLAAGIRPRMLVMELASKGSLDRLLQQDK 1260
                                                                                                                                                                                                                                                                   288 -- QRMCCPGMKVSCQLQVQRSLW--TATEDQKIYIYTLKGMCPLNTPQQALDTPAVVTCF 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              124 GISRQSFHEGALGVEGTPGYQAPEI-RPRIVYDEKVDMFSYGMVLYELL-SGQRPALG-- 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        236
                                                                                                                                                                               344 LAVPVIK--KNSYLVLAGLADGLVAVF 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10 AMKNESS-----FRQEASMLHALQHPCIVALIGISIHPLCFALELAPLSSLNTVLSENA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKLSDY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YCNSFSKQSKQKNFLLVGTADGKLAIF 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LAVPVIK--KNSYLVLAGLADGLVAVF 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADSRILCTAL --- VHLPVEKESWIVSGTQSGTLLVINTEDGKKRHTLEKMTDS----VTCL 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --QRMCCPGMKVSCQLQVQRSLW--TATEDQKIYIYTLKGMCPLNTPQQALDTPAVVTCF 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AELVCLTRRILLPKNVIVECMVATHHNSRNASIWLGCGHTDRGQLSFLDLNTEGYTSEEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PTFATFMYELCCGKQT---AFFSSQGQEYTVVFWDG----KEESRNYTVVNTEKGLMEV-
                                                                                                                                                                                                                          ADSRILCLAL---VHLFVEKESWIVSGTQSGTLLVINTEDGKKRHTLEKWTDS---VTCL
                                                                                                                                                                                                                                                                                                                                                               PTFATFMYELCCGKQT---AFFSSQGQEYTVVFWDG----KEESRNYTVVNTEKGLMEV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----HHQLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKD 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8.6%; Score 327.5; DB 12; Length 1818; 26.1%; Pred. No. 2.2e-18; tive 75; Mismatches 168; Indels 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Family Members and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               皮
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
    Query Match
Best Local Similarity
```

```
GENERAL INFORMATION:

APPLICANT: Meyers, Rachel E.

APPLICANT: Millennium Pharmaceuticals, Inc.

APPLICANT: Millennium Pharmaceuticals, Inc.

TITLE OF INVENTION: 39267, Human Kinase Family Members and

TITLE OF INVENTION: Uses Therefor

FILE REFERENCE: MPIO2-001PLRNM

CURRENT APPLICATION NUMBER: US/10/335,687A

CURRENT FILING DATE: 2003-01-02

PRIOR APPLICATION NUMBER: 60/345,773

PRIOR APPLICATION NUMBER: 60/345,773

PRIOR FILING DATE: 2002-01-02

NUMBER OF SEQ ID NOS: 20

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 5

LENGTH: 1824
                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/862,027
CURRENT FILING DATE: 2001-05-21
PRIOR APPLICATION NUMBER: US 09/345,473
PRIOR FILING DATE: 1999-66-30
NUMBER OF SEQ ID NOS: 82
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 19
SEQ ID NO 19
LENGTH: 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
US-09-862-027-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo sapiens US-10-335-687A-5
                                                                                  ; TYPE: PRT
; ORGANISM: Homo
US-09-862-027-19
                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 19, Application US/09862027
Patent No. US20020142428A1
GENERAL INFORMATION:
APPLICANT: Hodge, Martin R.
TITLE OF INVENTION: No. US20020142428A1el Kinases and Uses Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: 35800/234862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1316 GIAQYCCRWGIKTSEGTPGFRAPEVARGNVIYNQQADVYSFGLLLYDILTTGGRIVEGLK 1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1201 AVKIFNKHTSLRLLRQELVVLCHLHHPSLISLLAAGIRPRMLVMELASKGSLDRLLQQDK 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1376 FPNEFDELEIQGKLPDPVKEYGCAP----WPMVEKLIKQCLKENPQERPTSAQVFDILNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1546 YCNSFSKQSKQKNFLLVGTADGKLAIF 1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1432 AELVCLTRRILLPKNVIVECMVATHHNSRNASIWLGCGHTDRGQLSFLDLNTEGYTSEEV 1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261 AS----LTRTLOHRIALHVÄDGLRYLHSAMIIYRDLKPHNVLLFTLYPNAAIIAKIADY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                124 GISRQSFHEGALGVEGTPGYQAPEI-RPRIVYDEKVDMFSYGMVLYELL-SGQRPALG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    344 LAVPVIK--KNSYLVLAGLADGLVAVF 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               288 -- QRMCCPGMKVSCQLQVQRSLW--TATEDQKIYIYTLKGMCPLNTPQQALDTPAVVTCF 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              64 RDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIKLSDY 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 AMKNESE-----FRQEASMLHALQHPCIVALIGISIHPLCEALELAPLSSLNTVLSENA 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ----HHOLQIAKKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRPLALSVVSQMKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADSRILCLAL---VHLPVEKESWIVSGTQSGTLLVINTEDGKKRHTLEKMTDS---VTCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PTFATFMYELCCGKQT---AFFSSQGQEYTVVFWDG----KEESRNYTVVNTEKGLMEV- 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8.6%; Score 327.5; DB 1
26.1%; Pred. No. 2.2e-18;
7.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      75;
   Score 275.5; DB 10; 
Pred. No. 6.3e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches 168; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1824;
                              Length 394;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
```

1545

235

1315

251 230 198

```
Ş
                                       맑
                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 12
US-09-976-782-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       $
                                                                                                                                                                                     US-09-976-782-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 41, Application US/09976782 Publication No. US20030190715A1 GENERAL INFORMATION:
                                                                                                             Matches
                                                                                                                              Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Ver.
SEQ ID NO 41
LENGTH: 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/976,782
CURRENT FILING DATE: 2001-10-12
PRIOR APPLICATION NUMBER: 60/240,113
PRIOR FILING DATE: 2000-10-12
                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 127
                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/240,648 PRIOR FILING DATE: 2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Grosse et al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE:
                                                                                                                                                                                                                                                    TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                     OTHER INFORMATION:
                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TLE OF INVENTION: No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/240,732
FILING DATE: 2000-10-16
APPLICATION NUMBER: 60/240,625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/240,662 FILING DATE: 2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/240,669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/241,190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/240,637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       111
                                       29
   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \mathfrak{s}
                                                                                                               78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LING DATE: 2000-10-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         78;
                                                                                                                            Similarity
SENARDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIK 119
                                                                      LRHLRATDAMKNESEFRQEASMLHALQHPCIVALIGI -- SIHPLCFALELAPLSSLNTVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LALSVVSQM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GDLSNKI-LKITDFGLAREWHRTTKMSAAGTYAWMAPEVIRASMFSKGSDVWSYGVLLWE
                                   IKILKKRSLSEKKKRFLREIQILRRLSHPNIVRLLGVFEEDDHLYLVMEYMEGGDLFDYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SFINILDQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LLSGQRPALGHHQLQIA-----KKLSKGIRPVLGQPEEVQFRRLQALMMECWDTKPEKRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENARDSSFIPLGHMLTQKI----AYQIASGLAYLHKK---NIIFCDLKSDNILVWSL---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RHLRATDAMKNESEFRQEASMLHALQHPCIVALIGISIHP--LCFALELAPLSSINTVLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LLTGEVPFRGIDGLRVAYGVAMNKLALPIPSTCPEP-----FAKLMEDCWNPDPHSRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -DVKEHINIKLSDYGISRQSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ------GKRIPPDÍLVNWÁVQÍÁRGMNYLHDEAIVPÍÍHRDLKSSNÍLILQKVEN 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RHDPDEDISQTIENVROEAKLFAMLKHPNITALRGVCLKEPNLCLVMEFARGGPLNRVLS
                                                                                                                                                                                                                                                                                                                                                                                                                          CATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21402-157
                                                                                                                                                                                                                                                                                                                                                                                                                                               2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000-10-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                          2001-01-
                                                                                                                                                                                                     sequence
                                                                                                                                                                                                                      Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      233
                                                                                                                           7.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US20030190715A1el Proteins and Nucleic Acids Encoding Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60/240,703
                                                                                                                                                                                                                                                                                                                                                                                                                          60/262,455
                                                                                                           42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         42;
                                                                                                         Score 271; DB 12;
Pred. No. 7.9e-15;
2; Mismatches 93;
                                                                                                                                                                                                                      of Artificial Sequence:Consensus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92;
                                                                                                                                          Length 252;
                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                           28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       37;
                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                   88
                                                                      59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
US-09-976-782-30
US-09-976-782-30
; Sequence 30, Application US/09976782
; Publication No. US20030190715A1
; GENERAL INFORMATION:
                                                8
                                                                                       당
                                                                                                                       Ś
                                                                                                                                                              문
                                                                                                                                                                                               Ş
                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                              US-09-976-782-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맒
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 127
SOFTWARE: Patentin Ver. 2
SEQ ID NO 30
                                                                                                                                                                                                                                                        Query Match
Best Local :
                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/976,782
CURRENT FILING DATE: 2001-10-12
PRIOR APPLICATION NUMBER: 60/240,113
PRIOR FILING DATE: 2000-10-12
PRIOR APPLICATION NUMBER: 60/240,662
PRIOR PILING DATE: 2000-10-16
PRIOR FILING DATE: 2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/240,648 PRIOR FILING DATE: 2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/240,669
PRIOR FILING DATE: 2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/240,732
PRIOR FILING DATE: 2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: No. US20030190715A1el Proteins and FILE REFERENCE: 21402-157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Grosse et al
                                                                                                                                                                                                                                                                                                                              FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:Consensus
OTHER INFORMATION: sequence
                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 2
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/240,625
FILING DATE: 2000-10-16
APPLICATION NUMBER: 60/240,703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/262,455
FILING DATE: 2001-01-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/241,190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                   139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        177
                                                120 LSDYGISRQ---SFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           139 IADFGLARKLESSSYEKLTTFVGTPEYMAPEVLEGRGYSSKVDVWSLGVILYELLTGKLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120 LSDYGISRQ---SFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               231 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          252 N 252
                                                                                         89
                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89
                                                                                                                                                              29 IKILKKRSLSEKKKRFLREIQILRRLSHPNIVRLLGVFEEDDHLYLVMEYMEGGDLFDYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                          254
                                                                                                                                                                                                                                  Similarity 32.4
78; Conservative
                 IADFGLARKLESSSYEKLTTFVGTPEYMAPEVLEGRGYSSKVDVWSLGVILYELLTGKLP
                                                                                                                       SENARDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIK 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RRNG-----LLLSEKBAKKIALQILRGLEYLHSRGIVHRDLKPENIL-----LDENGTVK
                                                                                       RRNG-----LILSEKEAKKIALQILRGLEYLHSRGIVHRDLKPENIL-----LDENGTVK 138
                                                                                                                                                                                                 LRHLRATDAMKNESEFRQEASMLHALQHPCIVALIGI--SIHPLCFALELAPLSSLNTVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FPGIDPLEELFRIKE--RPRLRLPLPPNCSEE---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALGHHQLQIAKKLSKGIRPVLGQP-----EEVQFRRLQALMMECWDTKPEKRPLALSVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ON NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000-10-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000-10-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000-10-16
                                                                                                                                                                                                                                                      32.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60/240,637
                                                                                                                                                                                                                                      42;
                                                                                                                                                                                                                                    Score 271; DB
Pred. No. 8e-1:
42; Mismatches
                                                                                                                                                                                                                                                      8e-15;
                                                                                                                                                                                                                                                                     DB 12;
                                                                                                                                                                                                                                      93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -LKDLIKKCLNKDPEKRPTAKEIL
                                                                                                                                                                                                                                                                       Length 254;
                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic Acids Encoding
```

28;

Gaps

```
문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                               ; NUMBER OF SEQ ID NOS: 1
; SOFTWARE: PatentIn Ver:
; SEQ ID NO 41
; SEQ ID NO 41
; LENGTH: 256
; TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 41, Application US/09863776
Publication No. US20030198953A1
 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -09-863-776-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT FILING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: 09/540,763
PRIOR FILING DATE: 2000-03-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/206,679
PRIOR FILING DATE: 2000-05-24
PRIOR APPLICATION NUMBER: 60/206,688
PRIOR FILING DATE: 2000-05-24
                                                                                                                                                                                                                         PRIOR FILING DATE: 2001-01-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/206,829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: No. US
FILE REFERENCE: 21402-020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                       OTHER INFORMATION:
                                                                                                       ORGANISM: Artificial Sequence
                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 2000-05-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 2000-05-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/208,263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 252 N 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     231 S 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             177 ALGHHQLQIAKKLSKGIRPVLGQP-----EEVQFRRLQALMMECWDTKPEKRPLALSVV 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/863,776 FILING DATE: 2001-05-23
                                                                                                                                                                                                                                           LING DATE: 2001-01-24
PLICATION NUMBER: 60/263,694
                                                                                                                                                                                                                                                                                                                                                                                                                                                    LING DATE:
                                                                                                                                                                                                                                                                                                                                        ING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FPGIDPLEELFRIKE -- RPRLRLPLPPNCSEE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATION NUMBER: 60/207,748
                                                                                                                                                                                                                                                                               CATION NUMBER: 60/263,688
                                                                                                                                                                                                                                                                                                                                                                                            CATION NUMBER: 60/221,337
                                                                                                                                                                                                                                                                                                                                                                                                                                  CATION NUMBER: 60/219,507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATION NUMBER: 60/209,451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATION NUMBER: 60/207,798
                                                                                                                                                                                                                                                                                                                    CATION NUMBER: 60/263,135
                                                                                                                                                                                                                                                                                                                                                        CATION NUMBER: 60/221,927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATION NUMBER: 60/210,060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tchernev, Veli
Mishra, Vishnu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Shenoy, Suresh G
Rastelli, Luca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Spaderna, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pytek, Kimberly A
Majumder, Kumud
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Taupier, Raymond J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ON NUMBER: 60/208,831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000-05-30
                                                                                                                                                                                                                                                                                                  2001-01-1
                                                                                                                                                                                                                                                                                                                                        2000-07-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000-06-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000-06-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000-05-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000-05-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000-06-05
                                                     Description of Artificial domain Consensus Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Velizar T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Muralidhara
                                                                                                                                                                                                                                                                                                                                                                          -07-
                                                                                                                                                                                                                                                                                                                                                                                                                  -07-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US20030198953A1el Proteins and Nucleic
Score 271;
                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -LKDLIKKCLNKDPEKRPTAKEIL
                                                                         Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Acids Encoding
                                                                         kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Same
```

DB 12;

```
RESULT 15
US-10-288-798-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 12, Application US/10288798 Publication No. US20030207299A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 78; Conserv
                                                                                                                                             SEQ ID NO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: US 60/240,542
PRIOR FILING DATE: 2000-10-13
PRIOR APPLICATION NUMBER: US 60/238,389
PRIOR APPLICATION NUMBER: US 60/238,389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: PI-0209 USA
CURRENT APPLICATION NUMBER: US/10/288,798
                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 2000-08
                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: US 60/232,654 PRIOR FILING DATE: 2000-09-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT FILING DATE: 2002-11-01
PRIOR APPLICATION NUMBER: PCT/US01/27219
                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 60/231,357
                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: 2000-09
PRIOR APPLICATION NUMBER:
                                                     TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US 60/236,499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PPLICANT: BANDMAN, Olga; NGUYEN,
NAME/KEY: misc_feature
OTHER INFORMATION: Incyte ID No. US20030207299A1 55052990CD1
                                                                                                                      ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             139 IADFGLARKLESSSYEKLTTFVGTPEYMAPEVLEGRGYSSKVDVWSLGVILYELLTGKLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    252 N 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            231 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     199 FPGIDPLEELFRIKE--RPRLRLPLPPNCSEE-----LKDLIKKCLNKDPEKRPTAKEIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 177 ALGHHQLQIAKKLSKGIRPVLGQP-----EEVQFRRLQALMMECWDTKPEKRPLALSVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120 LSDYGISRQ---SFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYELLSGQRP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89 RRNG-----LLLSEKEAKKIALQILRGLEYLHSRGIVHRDLKPENIL-----LDENGTVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60 SENARDSSFIPLGHMLTQKIAYQIASGLAYLHKKNIIFCDLKSDNILVWSLDVKEHINIK 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29 IKILKKRSLSEKKKRFLREIQILRRLSHPNIVRLLGVFEEDDHLYLVMEYMEGGDLFDYL
                                                                                                                          1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 LRHLRATDAMKNFSEFRQEASMLHALQHPCIVALIGI--SIHPLCFALELAPLSSLNTVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INVENTION: HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GURÜRAJAN, Rajagopal; DİNG, Li;
PATTERSON, Chandra; YUE, Henry;
BAUGHN, Mariah R.; TRIBOULEY, Cather
THORNTON, Michael; ELLICTT, Vicki S.
LÜ, Yan; ISON, Craig H.;
AU-YOUNG, Janice; TANG, Y. Tom;
AZIMZAI, Yalda; BURRILL, John D.;
MARCUS, Gregory A.; ZINGLER, Kurt A.
LÜ, Dyung Aliah M.; LAL, Preeti G.;
RAMKUMAR, Jayalaxmi; WARREN, Eridget
KEARNEY, Liam; POLICKY, Jennifer L.;
THANGAVELU, Kavitha; BURFORD, Neil
                                                                                                                                                                                      SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WALIA, Narinder K.; HAFA
YAO, Monique G.; GANDHI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                       NUMBER: US
2000-08-31
                                                                                                                                                                                                                                                                                                                                           2000-09-22
                                                                                                                                                                                                                                                                                                                                                                                    2000-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                2000-10-06
                                                                                                                                                                                                                                                     2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               32.4%;
                                                                                                                                                                                                                                                                                                                                                               US 60/234,902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KINASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          42;
                                                                                                                                                                                                                              60/229,873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. 8.1e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HAFALIA, April J.A.;
NDHI, Ameena R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WARREN, Bridget A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Danniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Catherine M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A. ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  59
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-288-798-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 7.0%; Score 267.5; DB 12; Length 1097; Best Local Similarity 20.5%; Pred. No. 1.4e-13; Matches 178; Conservative 114; Mismatches 310; Indels 267; Gaps
964 -TPRRW-----NTQQDSTLERPKTLEFL 985
                                                                                                                                                                                                              578 -----SSSSVPFSTDCEDSDMLHTPGAASDRSEHDLTPMDGETFSQHLQAVKILAVRDLI 632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                631 PNLVKG-PRSSPALPGFTSLMEMEDEDSEGPGSGESRLQHSPSQSYLCIPFPRGEDGDGP 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               370 -- VVRGTPKD----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              571 KTWGRSSVVPKEEGEEEEKRAPKKKGRTWGPGTLGQKELASGDEGLKSLVDGYKQWSSSA 630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             511 KLKDGNRISLPSDFQHKFTVQASPTMDKRKSLINSRSSPASPTIIPRLRAIQLTPGESS 570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     309 TATEDQKIYI-----YTL-----KGMCPLNTPQQALDTPAVVTCFLAVPVIKKNSY 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            451 LTRAALQQKNQEELLRRREQELAERSIDILERELNIIHQLCQEKPRVKKKKKFKKSRL 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    283 GDLSNKI-LKITDFGLAREWHRTTKMSAAGTYAWMAPEVIRASMFSKGSDVWSYGVLLWE 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       111 - DVKEHINIKLSDYGISROSFHEGALGVEGTPGYQAPEIRPRIVYDEKVDMFSYGMVLYE 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   234 -----GKRIPPDİLVNWAVQİARGMNYLLDEAIVPİHRDLKSSNİLILQKVEN
                                                                                                                                                                                                                                                                                             858 VNVRVERFKRDPNQSLTPTHVTĹŤTPSQPSSHRRTPSDGALKPETLLÁSRSPSSNGLSPS
                                                                                                                                                                                                                                                                                                                                                                527 ADVSI-MYSEELGTQILIHQESLTDYCSMSSYSSSP-----PRQ--AARSPSSLPSSPA 577
                                                                                                                                                                                                                                                                                                                                                                                                                                            810 TLLSISSISECN----STRSLLRSDSDEIVVYEMPVSPVEA-PPLSPCTHNP-----L 857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   475 VMYHSTTYQLÇARYFCGVPSPLRD------MFPVRPLDTEPPAASHTANPKVPEGDSI 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              750 GKCQLLPLEEPEPPAREEKKRREGLFQRSSRPRRSTSPPSRKLFKKEEPMLLLGDPSASL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  432 ASLEICRRIEP------YMAPSMVTSVVCSSEGRGEEVVWCLDDKANSL 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 690 SSDGIHEEPTPVNSATSTPQLTPTNSLKRGGAHHRRCEVALLGCGAVLAATGLGFDLLEA 749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  355 LV------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           268 -----GKEE---SRNYTVVNTEKGLME-----VQRNCCPGMKVSCQL-QVQRSLW 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   395 SFINILDOLTTIEESGFFEMPKDSFHCLODNWKHEI----OEMFDQLRAKEKELRTWEEE 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          225 LALSVVSQM------KDPTFA---TFMYELCCGKQTAFFSSQGQEYTVVFWD-- 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     342 LLTGEVPFRGIDGLAVAYGVAMNKLALPIPSTCPEP-----FAKLMEDCWNPDPHSRP 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         170 LLSGQRPALGHHQLQIA-----KKLSKGIREVLGQPEEVQFRRLQALMMECWDTKPEKRP 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     174 RHDPDEDISQTIENVRÓBAKLFAMLKHPNÍTÁLRGVCLKEPNÍCLVMEFÁRGGPLNRVLS 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 ENARDSSFIPLGHMLTQKI----AYQIASGLAYLHKK---NIIFCDLKSDNILVWSL--- 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 RHLRATDAMKNESEFRQEASMLHALQHPCIVALIGISIHP--LCFALELAPLSSLNTVLS
                                                                                                                                              PGAGESSSFLFPFFVPPQGMLKTPSPSRDPGEFPRLFDPNVVFPP---------
                                                                   WVPRRGGDVIVIGLEKDSEAQRGRVIAVL 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----LAGLADGLVAVFP------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----SCSYLC-SHTANRSKFSI 394
                                                                                                                                                                                                                                                                                             917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
```

Search completed: December 14, 2003, 07:25:34
Job time : 38 secs

```
Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -Q=/cgn2_1/USFTO_spool_p/US09836392/runat_12122003_142519_1075/app_query.fasta_1.903
-DB=Issued_Patents_NA -OFMT=fastap_-SUFFIX=rni -MINNATCH=0.1 -LOOPCL=0
-LOOPCXT=0 -UNITS=5its_Sits_SIRRT=1 -END=-1 -MATRIX=blosum62 -TRANS=human40:cdi
-LIST=45 -DCCALIGN=200 -THR_SCORE=pot -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER=US09836392_@CGN_1_1_03_@runat_1212203_3 142519_1075 -NOPU=6 -ICPU=3
-NO_MAAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Command line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                              0 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          on:
                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   p2n.model -DEV=xlp
                                                                                                                                                                                                                                                               Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xgapop 10.0
Ygapop 10.0
Fgapop 6.0
Delop 6.0
                                                                                                                                                                                                                                                                                                                                                                                                                                     Issued_Patents_NA:*

1: /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
5: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/2/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          December 14, 2003, 07:21:06 ; Search time 123 Seconds (without alignments) 2612.414 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-836-392-21
3822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       569978 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MLRHLRATDAMKNFSEFRQE.....IFYQSYEELGRLEACTRKRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                             Length
      526
3389
2770
2770
2770
2770
2827
7607
7607
7507
1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ygapext
'Ygapext
'Fgapext
'Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220691566 residues
                                                                                                                                                                                                                                                               띪
4 US-09-387-2121-10

4 US-09-948-802-10

US-08-395-580-1

US-08-232-545-5

US-08-232-545-5

US-08-292-723-1

US-08-492-723-1

US-08-492-723-1

US-08-496-688-19

US-08-496-688-19

US-09-221-235-6

US-09-221-235-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7.00
Sequence 10, Appl
Sequence 11, Appli
Sequence 1, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 1, Appli
Sequence 19, Appl
Sequence 19, Appl
Sequence 19, Appli
Sequence 19, Appli
Sequence 6, Appli
                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANN: ROBISON, KETTH E.
TITLE OF INVENTION: NUCLEIC ACID MOLECULES E
TITLE OF INVENTION: PHOSPHATASE HOMOLOGUES A
FILE REFERENCE: MNI-090
CURRENT APPLICATION NUMBER: US/09/387,212A
CURRENT FILING DATE: 1999-08-31
NUMBER OF SEQ ID NOS: 18
SOFWMARE: Patentin Ver. 2.0
SEQ ID NO 10
SEQ ID NO 10
LENGTH: 526
  Ş
                                         맒
                                                                           Ş
                                                                                                                                                                                                                                                           Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 1
US-09-387-212-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 10, Application US/09387212A Patent No. 6309849
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
    119 LysLeuSerAspTyrGlyIleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGlu 138
                                         12
```

4.5	44	43	42	41	40	39	38	37	36	S	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	
28.	•	28.	Û	•	w	w	w	ω	37.	•	w	w	4	4	4	4	4	4	4	4	Α.	4	4	4	4	4	4	Α	4	4	243	4	
													٠																		6.4		
26	78	78	59	13	ဒ	3	89	68	5	2	35	59	42	12	片	12	12	12	12	12	72	12	12	11	36	36	36	36	36	36	1365	36	
Н	4,	4	4	μ	,	۳	U	4	w	w	N	N	سا	W	ω	ω	ω	W	w	w	W	ω	W	4	ω	w	ω	w	w	W	W	ω	
08-444-005-1	10-158-89	09-529-279-1	09-417-197-1	08-444-005-1	08-261-432-	08-003-311B	-US93-07347-	07-928-464-	09-161-443-	09-132-118-	08-469-537	08-469-537A-7	08-205-018-	09-221-237-	09-593-553-	09-221-528-	09-163-115-	09-221-245-	09-221-416-	09-221-236-	09-221-527-	09-221-928-	09-221-235-	09-399-588-	09-221-237-	09-593-553-	09-221-528-	09-163-115-	09-221-245-	09-221-416-	US-09-221-236-6	09-221-527-	
equence 14, Ap	equence 14, Ap	equence 14, App	equence 110, A	equence 16, App	equence 1, Appl	equence 1, Appl	equence 1, Appl	equence 1, Appl	equence 1, Appl	equence 1, Appl	equence 104, Ap	equence 77, App	equence 1, Appl	equence 4, Appl	equence 4, Appl	equence 4, Appl	equence 4, Appl	equence 4, Appl	equence 4, Appl	equence 4, Appl	equence 4, Appl	equence 4, Appl	equence 4, Appl	equence 1, Appl	equence 6, Appl	equence 6, Appl	equence 6, Appl	equence 6, Appl	equence 6, Appl	equence 6, Appl	quenc	equence 6, Appl	

ALIGNMENTS

KEITH E.
NUCLEIC ACID MOLECULES
PHOSPHATASE HOMOLOGUES

ENCODING AND USES

HUMAN KINASE THEREFOR

AND

```
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                        , OTHER INFORMATION: All occurrences of n indicate any nucleotide US-09-387-212-10
                               US-09-836-392-21 (1-728) x US-09-387-212-10 (1-526)
                                                                                                                                                                                                    ORGANISM: Homo sapiens FEATURE:
AspLeulysSerAspAsnIleLeuValTrpSerLeuAspValLysGluHisIleAsnIle 118
                                                                      1.76e-74
856.00
97.69%
97.69%
                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                            1626
0 3 1 69
```

Ś В

```
RESULT 2
US-09-948-802-10
                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                 US-09-836-392-21 (1-728) x US-09-948-802-10 (1-526)
                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                       US-09-948-802-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: ROBISON, KEITH E.

TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE;
TITLE OF INVENTION: PHOSPHATASE HOMOLOGUES AND USES THEREFOR
FILE REPERENCE: NNI-090
CURRENT FELLING NUMBER: US/09/948,802
CURRENT FILING DATE: 2001-09-07
PRIOR APPLICATION NUMBER: 09/387,212
PRIOR APPLICATION NUMBER: 09/387,212
PRIOR FILING DATE: 1999-08-31
NUMBER OF SEQ ID NOS: 18
SOFTWARE: PATENTIN VET. 2.0
SEQ ID NO 10
LENGTH: 526
TUNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 10,
Patent No. 64
                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: All occurences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                         No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        132
                                                                            119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72
                                                                                                                     12 GACCIGAAGTCGGACAACATTCTGGTGTGGTCCCTTGACGTCAAGGAGCACATCAACATC
                                                                                                                                                         99 AspLeuLysSerAspAsnIleLeuValTrpSerLeuAspValLysGluHisIleAsnIle
                                                             LysLeuSsrAspTyrGlyIleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyThrProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyHisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgProValLeuGly 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCTATCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGGGCGCCCTAGGCGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCAGGAGTACACTGTGGGTGTTTTGGGATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lyGlnGluTyrThrVal-ValPheTrpAspGly 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCACCTTCATGTATGAACTGTGCTGTGGGAAGCAGACAGCCTTCTTCATNCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       eAlaThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePhe-SerSerGlnG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LysProGluLysArgProLeuAlaLeuSerValVal-SerGlnMetLysAspProThrPh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCCGGAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlnProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCACCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCGGTTCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATATGTTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AspMetPheSerTyrGlyMetValLeuTyrGluLeuLeuSerGlyGlnArgProAlaLeu 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCACTCCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGAAGGTA
GlyThrProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysVal 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCCAGAGAAGCGACCACTGGCCCTGTCGGTGGTGAAGCCAGATGAAGGACCCGACTTT
                                        AAGCTATCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGGGCGCCCTAGGCGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/09948802
                                                                                                                                                                                                                                                      1.76e-74
856.00
97.69%
97.69%
22.40%
                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                        of n indicate any nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      524
                                                                                                                                                                                                                                                                                                   526
169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               158
                                        131
                                                                              138
                                                                                                                     71
                                                                                                                                                           118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
US-08-395-580-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Applic
Patent No. 5676945
                                                                                                                                                                                                              CLASSIFICATION: 514
PRIOR APPLICATION DATA: 08/205,018
APPLICATION NUMBER: 08/205,018
FILING DATE: 01-MAR-1994
ATTORNEY/AGENT INFORMATION:
NAME: Rebecca L. Ralph (formerly Gaumond)
REGISTRATION NUMBER: 35,152
REFERENCE/DOCKET NUMBER: CH-0488
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:

APPLICANT: Usharani R. Reddy, David Pleasure and the Children's
APPLICANT: Hospital of Philadelphia
TITLE OF INVENTION:

No. 5676945el Protein Kinase, Nucleic Acid
TITLE OF INVENTION:
Sequences Encoding the Same and Methods Related
                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 19103
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch disk, 720 K
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Wordberfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/395,580
FILING DATE: herewith
                                                                                                                                                                          TELEPHONE: 215-568-310
TELEFAX: 215-568-3439
INFORMATION FOR SEQ ID NO:
                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 3389 base pair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz and No. 5676945ris
STREET: One Liberty Place - 46th Floor
                                          MOLECULE TYPE:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
    NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: U.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: One Libert CITY: Philadelphia
                                                                                TOPOLOGY:
                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       258
                                                                                                                  nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              lyGlnGluTyrThrVal-ValPheTrpAspGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspMetPheSerTyrGlyMetValLeuTyrGluLeuLeuSerGlyGlnArgProAlaLeu 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCAGGAGTACACTGTGGGTGTTTTGGGATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      eAlaThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePhe-SerSerGlnG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGCCAGAGAAGCGACCACTGGCCCCTGTCGGTGGTGAAGCCAGATGAAGGACCCGACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysProGluLysArgProLeuAlaLeuSerValVal-SerGlnMetLysAspProThrPh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCCGGAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlnProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCCACCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCGGTTCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyHisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgProValLeuGly 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATATGTTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCCACCTTCATGTATGAACTGTGCTGTGGGAAGCAGCAGACAGCCTTCTTCATNCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         U.S.A.
  CDS
99..2105
                                                                                linear
                                                                                                 double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      us/08395580
                                                                                                                                                                                                                                                                                                                                                                                                                                             US/08/395,580
                                                                                                                                                                                  <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   524
```

Thereto

238 371 218 311 251

191

491 258 431

δõ g Ś 멍 Ş 뫄 Ś 밁 Ś 밁

Ś

Ś 문 Ś

밁

```
밁
                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                              Ş
                                                                                                   밁
                                                                                                                          Ś
                                                                                                                                                                                                                                     Ď,
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-836-392-21 (1-728) x US-08-395-580-1 (1-3389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-395-580-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         No.:
                                                                                                                                                                     1194
                                                                                                                                                                                                                                     1134
                                                                                                                                                                                                                                                                                                                                                                         1053
                                                                                                   1221
                                                                                                                                                                                                                                                                                                       1086
                                                                                                                                   249
                                                                                                                                                                                                                                                                     215
                                                                                                                                                                                                                                                                                                                                       195
                                                                                                                                                                                                                                                                                                                                                                                                         177
                                                                                                                                                                                                                                                                                                                                                                                                                                         993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                666 ATGGAGTTCTGCGCCCAGGGCCAGCTGTATGAGGTACTGCGGGCTGGCCGC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                606 CACCCCAACATCATCACTTTCAAGGGTGTGTGCACCCAGGCTCCCTGCTACTGCATCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                546 GCTGTGAAGAAGGTGCGAGACCTCAAAGAAACCGACATCAAGCACTTGCGAAAGCTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10 AlaMetLysAsnPheSerGluPheArgGln---GluAlaSerMetLeuHisAlaLeuGln
                                GAAAAGATTAAGTCAGAAGGGACCTGTCTGCACCGCCTAGAAGAGGAACTGGTGATGAGG 1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCACCTACGACGATGTG------GTGAAGATCTCAGATTTTGGCACTTCC
 pAspGlyLysGluGluSerArgAsnTyrThrValValAsnThrGluLysGlyLeuMetGl 286
                                                                                                                                                                     ATTGCCTCAGCT--
                                                                                                                                                                                                                                                                                                                                                                      ATCTGGGGTGTGGGAAGCAACAGTCTCCATCTG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProGluIleArgProArgIleValTyrAspGluLysValAspMetPheSerTyrGlyMet 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGGAGCTGÁGTGACAAGAGCACCAAGATGTCCTTTGCAGGGÁCAGTAGCCTGGATGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuAlaTyrLeuHisLysLysAsnIleIlePheCysAspLeuLysSerAspAsnIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ------CCTGTCACCCCCTCCTTACTGGTTGACTGGTCCATGGCCATCGCTGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerPheIleProLeuGlyHisMetLeuThrGlnLysIleAlaTyrGlnIleAlaSerGly
                                                                                                CCCCAGGAGACTTACTTTAAGTCCCAGGCAGAGTGGCGGGAAGAAGTAAAACTGCACTTT 128
                                                                                                                                LysGlnThrAlaPhePheSerSerGlnGlyGln-----
                                                                                                                                                                                                ValValSerGlnMetLysAspProThrPheAlaThrPheMetTyrGluLeuCysCysGly 248
                                                                                                                                                                                                                                  TÓCTGGAATAGCAAACCACGAAATCGCCCATCATTCCGACAGATCCTGCTGCATCTGGAC 119:
                                                                                                                                                                                                                                                                  CysTrpAspThrLysProGluLysArgPro-----
                                                                                                                                                                                                                                                                                                    CCCGTGCCCTCCAGTTGCCCCAGAT------GGTTTCAAGATCCTGCTTCGCCAG 1133
                                                                                                                                                                                                                                                                                                                                  ProValLeuGlyGlnProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGlu
                                                                                                                                                                                                                                                                                                                                                                                                  -----AlaLeuGlyHisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArg 194
                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGCTATGGGÄÄCTGCTGACTGGTGAGATCCCCCTACAAAGACGTAGATTCCTCAGCCATT 1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTGAGGTGATCCGCAATGAACCTGTGTCTCAAGAAGGTCGACATCTGGTCCTTTGGCGTG 992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ArgGln---SerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyrGlnAla 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValTrpSerLeuAspValLysGluHisIleAsnIleLysLeuSerAspTyrGlyIleSer 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGAACTACCTGCACCTGCACAAGATTATCCACAGGGATCTCAAGTCACCCAACATGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuGluLeuAlaProLeuSerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HisProCysIleValAlaLeuIleGlyIleSerIleHisProLeuCysPheAla-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8,66e-15
257,50
32,14%
21,16%
6,74%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    263
263
263
                                                                                                                                                                   --GATGTACTCTCCACA
                                                                                                                                                                                                                                                                    --LeuAlaLeuSer 228
                                                                                                                                  259
                                                                                                                                                                                                                                                                                                                                    214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                716
              S
                                                밁
                                                                            δ
                                                                                                                뮹
                                                                                                                                           5
                                                                                                                                                                                맑
                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                 2037
                                                                                                                                                                                  1917
                                                                                                                                                                                                                                                    1896
                                                                                                                                                                                                                                                                                                                                                                                    1812
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1706
                                                                                                                  1977
                                                                                                                                                                                                                                                                                                                    1872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1473
                                                                                                                                                                                                                                                                                                                                                    507
                                                                                                                                                                                                                  547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1674 GGGCTTCCTGGGTGTCCTAAGGCCCCCCCCCCTC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600 AlaSerAspArgSerGluHisAspLeuThrProMetAspGlyGluThrPheSerGlnHis 619
                                                                                                                                                                                                                                                                                  527
                                                                                                                                                                                                                                                                                                                                                                                                                      494 ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        436 leCysArgArgLeuGluProTyrMetAlaProSerMetValThrSerValValCysSerS 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  365 alAlaValPheProValValArgGlyThrProLysAspSerCysSerTyrLeuCysSerH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            345 laValProValIleLysLysAsnSerTyrLeuValLeuAlaGlyLeuAlaAspGlyLeuV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               286 uValGlnArgMetCysCysProGlyMetLysValSerCysGlnLeuGlnValGlnArgSe
                                                 GGCTCAGCCCCTGGCTCCACCAGCCCAGAT----
                                                                              SerSerValProPheSerThrAspCysGluAspSerAspMetLeuHisThrProGlyAla
                                                                                                                                                                                                                SerLeuThrAspTyrCysSerMetSerSerTyrSerSerSerProProArgGlnAla---
                                                                                                                                                                                                                                                                                                                                                  hrGluProProAlaAlaSer-HisThrAlaAsnProLysValProGluGlyAspSerIle 526
                                                                                                                                                                                                                                                                                                                                                                                    GGAGGACCAGGAAGCCCAGGGGGGCCTAGGAGGGGGGACCCTCAGCCTGGGAGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    etTyrHisSerThrThrTyrGlnLeuCysAlaArgTyrPheCysGlyValPro-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCAAGGCCAGCCCAAGGGGAGCTGTGG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    erGluGlyArgGlyGluGluValValTrpCysLeuAspAspLysAlaAsnSerLeuValM 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGATATCCTCAAGGCGGAGTCTTTGCTCCCTAAACTAGATGCAGCCCCTGAGTGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----TyrproValLysAlaMetGluVal-----
                                                                                                                  GGCGGAGCTGGGGATCCTGGCTCACCACCTCCGGCCCGGGGTGACACCCCACCAAGTGAG
                                                                                                                                                ----AlaArgSerProSerSerLeuPro----
                                                                                                                                                                                                                                                                                  AlaAspValSerIleMetTyrSerGluGluLeuGlyThrGlnIleLeuIleHisGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -- ACCAGGACGGAGTCGCCGTGGCAAGACCCG---
                                                                                                                                                                                  TOTTCATCGTCCCCAGACCTGCTGTCAGCAGCACTAGGGTCCCGGGGGCCGGGGGCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      erGluValTrpTyrSerAsnGlyProGlyLeuLeuValIleAspCysAlaSerLeuGluI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          isThrAlaAsnArgSerLysPheSerIleAlaAspGluAspAlaArgGlnAsnPro----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCCTCCTGCATGGAAACACAATGGA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGCGAGAGCAAGCTTTAGAGCGGAGGTGCCCAGGCCTGCTGAAGCCACACCCTTCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                roLeuAsnThrProGlnGlnAla---LeuAspThrProAlaValValThrCysPheLeuA 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rLeuTrpThrAlaThrGluAspGlnLysIleTyrIleTyrThrLeuLysGlyMetCys-P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAGCCAACCACCTGTATATGGAACTTAATGCCCCTCATGT--
                                                                                                                                                                                                                                                                                                                                                                                                                  ----SerProLeuArgAspMetPheProValArgProLeuAspT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----GAAGCTTATCAAGAAGAGGAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      -GGACCTGCCTGGGCTTCGTACAGCTGTGCCACCCCATGAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ----GCCACAGAATCTGTCACCCCATAGCCAAAGG
                                                                                                                                                                                                                                                    -GACCTCCTGCTCCGCAAAATG
                                                                                                                                                  -SerSerProAlaSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -ValAsnSerGlyS
                                                TCACCTGGGGGA 2078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  --TG 1442
```

1768

1739

1705

1673

416

436

1613

403 1582 385 1558 1532

1871

1976

1916

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-426-509A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                    Query Match:
DB:
 US-09-836-392-21
                                                                     Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                  US-08-426-509A-5
                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: FastSEQ Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/426,509A
FILING DATE: 21-APR-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/232,545
FILING DATE:
DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 5, Application US/08426509A Patent No. 6326469
                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-790-9090
TELEFAX: 212-669-9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 5:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION: APPLICANT: Ullric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM COmpatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Gishizsky,, Mikhail
APPLICANT: Sures,, Irman G.
TITLE OF INVENTION: NOVEL MEGA
TITLE OF INVENTION: TYROSINE K
NUMBER OF SEQUENCES: 21
                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                              No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: N
                                                                                                                                                                                                                                                                                                                                                                                   NAME: Coruzzi, Laura A
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET:
                                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2232 AGTCAGAAACGTGGCATCTCATCGGAAGAGGAGGAAGGAGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     680 LysAspThrValValCysThrPheGluAsnGluAsnThrGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10036-2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New York,
                                                                                                                                                                                                                               nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCAAAGGGGAACCACCTCCTCCAGTAGGGCCTGGTGAAGGT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValLeuLysAlaArgGluLeuThrProHisGlyValLeuValAspAlaAlaValValAla 679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ---GTGGGGCTTCTGGGAACTGGAAGGGAAGGGACCTCAGGCCGGGGAGGAAGCCGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AspValIleValIleGlyLeuGluLysAspSerGluAlaGlnArgGlyArgValIleAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuGlnAlaValLysIleLeuAlaValArgAspLeuIleTrpValProArgArgGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1155 Avenue of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ullrich,, Axel
 (1-728)
                                                                                                                                                                                                    unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -GGGTCCCAGCACTTGACCCCATCTGCACTGCTGTACAGGGCTGCCGTCACCCGA 2231
                                                                                                                                                                                                                     unknown
                                  6.6e-14
247.00
44.32%
26.76%
6.46%
x US-08-426-509A-5 (1-2770)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOVEL MEGAKARYOCYTIC PROTEIN TYROSINE KINASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the Americas
                                                                                                                                                                                                                                                                                                                                                                                     7683-0074-999
                                                  Conservative: Mismatches: Indels:
                                 2770
99
65
129
78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2120
                                                  Š
                                                                                                                                                               밁
                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                           멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                           8
                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1299
                                                                                                                                                                   1961
                                                                                                                                                                                                                                         1928
                                                                                                                                                                                                                                                                                                                 1868
                                                                                                                                                                                                                                                                                                                                                                                       1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1179 ANTGACTTCCTGAGGGAGGCACAGATAATGAAGAACCTAAGACATCCAAAGCTTATCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1239 CTTTATGCTGTTTGCACTTTAGAAGATCCAATTTATATTATTACAGAGTTGATGAGACAT
                     2048 TTGACTGGGCAACACTGCAGGACAGTCAAGGTCATATATAATTGCTCACTGCCTGGAAAA 2107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 111 AspValLysGluHisIleAsnIleLysLeuSerAspTyrGlyIleSerArg------
                                                                                                                                                                                                                                                                              271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                    289
                                                                                                                                                                                                                                                                                                                                                    255
                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 53 SerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSerSerPheIleProLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgProValLeuGlyGln 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PheSerTyrGlyMetValLeuTyrGluLeuLeuSer---GlyGlnArgProAlaLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTAGATAATGAAGACATCTATGAATCTAGACÁCGÁAATAAAGCTGCCGGTGAAGTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGTCTCGGAACTACATTCACAGAGATCTGGCTGCCAGAAATGTCCTC-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ---CATCTGACTCAACAGGTAGACATGGCGGCACAGGTTGCCTCTGGAATGGCCTATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerGluPheArgGlnGluAlaSerMetLeuHisAlaLeuGlnHisProCysIleValAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGACAGGTGCCCAGGTAATCCAGATGTTGGCTCAAAACTATAGA-----CTTCCGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HisLysLysAsnIleIlePheCysAspLeuLysSerAspAsnIleLeuValTrpSerLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HisMetLeuThrGlnLysIle-----AlaTyrGlnIleAlaSerGlyLeuAlaTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAAGTCTGCAAGAATATCTC---CAAAATGACACTGGATCAAAAATC----
                                                        AsnThrProGlnGlnAlaLeuAspThrProAlaValValThrCysPheLeuAlaValPro
                                                                                             TATTCAAGTGATAGGATAÁAGTTGGCCATGTÁTTATGAAÁAAAAGATTATTTGTGCATTTTA
                                                                                                                            ThrAlaThrGluAspGlniysIleTyrIleTyrThrLeuiysGly---MetÇysProieu
                                                                                                                                                                                                  ArgMetCysCysProGlyMetLysValSerCysGlnLeuGlnValGlnArgSerLeuTrp
                                                                                                                                                                                                                                         AAATAATCCATTCCAAAATACAATGTTATCAAC----
                                                                                                                                                                                                                                                                          Glu-----SerArgAsnTyrThrValValAsnThrGluLysGlyLeuMetGluValGln
                                                                                                                                                                                                                                                                                                                 TAACTTCATAAGATGAACACTGGAGAAGAATATCAAATAATAAAGTAGCAAAACAAATTC
                                                                                                                                                                                                                                                                                                                                                                                       ÁCACTGCGTTGGAAACTTGAAGACTATTTTGAAÁCAGA-CTCTTCATATTCAGATGCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                      ThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePhe------
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTAAGGAACGA------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCATCCAACTGTCCA---CAGCAATTTTACAACATCATGTTGGAGTGCTGGAATGCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGTCÁTTTGGÁATCCTTCTTTÁTGÁAATCATTACTTATGGCAAAATGCCTTACAGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysValAspMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeulleGlylleSerIle-----HisproLeuCysPheAlaLeuGluLeuAlaProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -GTTGGTGAACATAATATCTACAAAGTAGCAGATTTTGGACTTGCCAGAGTTTTTAAG
                                                                                                                                                                                                                                                                                                                                                -----SerSerGlnGlyGlnGluTyrThrValValPheTrpAspGlyLysGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCGCCCGAAGCCATTCGTAGTAATAAATTCAGCATTAAGTCCGATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----GlnSerPheHisGluGlyAlaLeuGlyValGluGlyThr 140
                                                                                                                                                                     CAACTGCACAATCAGTTTATCCTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTACATTTGAG
```

327

308 1960

2047

1927

270

1808 239 1784 219 1727

254

1613

1673 179 1565

160

1505

127

1448

1400

90

110

1343

72

1238

Ś

```
S
                                                                                                                                               밁
                                                                                                                                                                              ş
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
                               8
                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                               US-09-836-392-21 (1-728) x US-08-232-545-5 (1-2770)
                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-232-545-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-232-545-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 5, Application Patent No. 6506578
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX: 66141 PENNIE INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                              . No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NERAL INFORMATION, AXEL APPLICANT: Ullrich, AXEL APPLICANT: Ullrich, AXEL APPLICANT: Gishizsky, Mikhail APPLICANT: Sures, Irman G.
APPLICANT: Sures, Irman G.
APPLICANT: NO. 6506578el Megakaryocytic Protein Tyrosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742 REFERENCE/DOCKET NUMBER: 766 TELECOMMUNICATION INFORMATION: TELEPHONE: (212)790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/0:
FILING DATE: 22-APR-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ENGTH:
                                                                                                                                                 1239
                                                                          1299
                                                                                                                                                                                                                      1179 AATGACTTCCTGAGGGAGGCACAGATAATGAAGAACCTAAGACATCCAAAGCTTATCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2108 TTAAGCACACTAAACCAAGTTATTTTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               348 ValileLysLysAsnSerTyrLeuValLeu
                                     73
                                                                                                                                                                                                                                                       15 SerGluPheArgGlnGluAlaSerMetLeuHisAlaLeuGlnHisProCysIleValAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          H: 2770 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10036
                           HisMetLeuThrGlnLysIle-----AlaTyrGlnIleAlaSerGlyLeuAlaTyrLeu 90
                                                                                                                                                                                LeulleGlylleSerlle-----HisproLeuCysPheAlaLeuGluLeuAlaProLeu 52
---CATCTGACTCAACAGGTAGACATGGCGGCACAGGTTGCCTCTGGAATGGCCTATCTG 1400
                                                                        GGAAGTCTGCAAGAATATCTC---CAAAATGACACTGGATCAAAAATC
                                                                                                          SerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSerSerPheIleProLeuGly 72
                                                                                                                                             CTTTATGCTGTTTGCACTTTAGAAGATCCAATTTATATTATTACAGAGTTGATGAGAGACAT 1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (212)869-9741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                    6.6e-14
247.00
44.32%
26.76%
6.46%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US/08232545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US/08/232,545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7683-050
                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                     Conservative: Mismatches:
                                                                                                                                                                                                                                                                                                                                                      Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #
                                                                                                                                                                                                                                                                                                                                2770
99
65
129
78
                                                                                                                                                                                                                      1238
                                                                      1343
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                PCT-US95-05008-5
                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                     뮍
                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                        Sequence 5, Application GENERAL INFORMATION: Sugen, APPLICANT: Sugen, APPLICANT: 515 Ga
                               APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1506
                                                                                                                                                                                                                                                                                                              2048 TTGACTGGGCAACACTGCAGGACAGTCAAGGTCATATATAATTGCTCACTGCCTGGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1928 AAATAATCCATTCCAAAATACAATGTTATCAAC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1449
                                                                                                                                                                                                                                       2108 TTAAGCACACTAAACCAAGTTATTTTTCTT 2137
                                                                                                                                                                                                                                                                                                                                                                                       1988 TATTCAAGTGATAGGATAAAGTTGGCCATGTATTATGAAAAAGATTATTTGTGCATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1868 TAACTTCATAAGATGAACACTGGAGAAGAATATCAAATAATAAAGTAGCAAAACAAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1401 GAGTCTCGGÄÄCTACÄTTCACAGAĞÄTCTĞGCTGCCAGAÄÄTGTCCTC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180 HisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgProValLeuGlyGln 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                         348 ValileLysLysAsnSerTyrLeuValLeu 357
                                                                                                                                                                                                                                                                                                                                                  328 AsnThrProGlnGlnAlaLeuAspThrProAlaValValThrCysPheLeuAlaValPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTAAGGAACGA----
                 Sugen, Inc.
Sugen, Inc.
515 Galveston Drive
518 Redwood City, California 9
1 United States of America
f: Wissenschaften E.V.
1 "Affarten Str. 2
                                                                                                                                                               Application PC/TUS9505008
                                                                                                                                                                                                                                                                                                                                                                                                                      ThrAlaThrGluAspGlnLysIleTyrIleTyrThrLeuLysGly---MetCysProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ArgMetCysCysProGlyMetLysValSerCysGlnLeuGlnValGlnArgSerLeuTrp 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Glu----SerArgAsnTyrThrValValAsnThrGluLysGlyLeuMetGluValGln 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePhe-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCATCCAACTGTCCA---CAGCAATTTTACAACATCATGTTGGAGTGCTGGAATGCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGTCATTTGGAATCCTTCTTTATGAAATCATTACTTATGGCAAAATGCCTTACAGTGGT 1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PheSerTyrGlyMetValLeuTyrGluLeuLeuSer---GlyGlnArgProAlaLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AspValLysGluHisIleAsnIleLysLeuSerAspTyrGlyIleSerArg------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HisLysLysAsnIleIlePheCysAspLeuLysSerAspAsnIleLeuValTrpSerLeu 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----CAACTGCACAATCAGTTATCCTGACA 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------SerSerGlnGlyGlnGluTyrThrValValPheTrpAspGlyLysGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACACTGCGTTGGAAACTTGAAGACTATTTTGAAACAGA-CTCTTCATATTCAGATGCAAA 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAla 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLys 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGACAGGTGCCCAGGTAATCCAGATGTTGGCTCAAAACTATAGA-----CTTCCGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysValAspMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTAGATAATGAAGACATCTATGAATCTAGACACGAAATAAAGCTGCCGGTGAAGTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---GTTGGTGAACATAATATCTACAAAGTAGCAGATTTTGGACTTGCCAGAGTTTTTAAG 150:
Germany
             Hofgarten Str.
Munchen 80539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---GCGCCCGAAGCCATTCGTAGTAATAAATTCAGCATTAAGTCCGATGTA 161:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ------GlnSerPheHisGluGlyAlaLeuGlyValGluGlyThr 140
                                                                                        94063-4720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -CCTACATTTGAG 1808
                                                                                                                                                                                                                                                                                                                2107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   160
                                                                                                                                                                                                                                                                                                                                                    347
                                                                                                                                                                                                                                                                                                                                                                                     2047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1565
```

```
US-09-836-392-21 (1-728) x PCT-US95-05008-5 (1-2770)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
ODERATING SYSTEM: PC COMPOSED
ODERATING SYSTEM: PC COMPOSED
SOFTWARE: Patentin Release #1.0, Version #1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/05008
FILING DATE: 24-APR-1995
CLASSIFICATION DATA:
APPLICATION UNMBER: US 08/232,545
FILING DATE: 22-APR-1994
FILING DATE: 22-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 2770 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: COTUZZI, LAUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 768:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212)790-9090
TELEFAX: (212)869-9741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: un
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                         1299
                                                                                                                                                                                         1344 ---CATCTGÁCTCÁÁCAGGTAGACATGGCGGCACÁGGTTGCCTCTGGÁATGGCCTÁTCTG 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                           1179 AATGACTTCCTGAGGGAGGCACAGATAATGAAGAACCTAAGACATCCAAAGCTTATCCAG 1238
                                                                                                                                                  91
                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                 35 LeuileGlyIleSerIle-----HisProLeuCysPheAlaLeuGluLeuAlaProLeu 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10036
                                                           AspValLysGluHisIleAsnIleLysLeuSerAspTyrGlyIleSerArg------
                                                                                                                                                                                                                               HisMetLeuThrGlnLysIle-----AlaTyrGlnIleAlaSerGlyLeuAlaTyrLeu
                                                                                                                                                                                                                                                                         GGAAGTCTGCAAGAATATCTC---CAAAATGACACTGGATCAAAAATC---
                                                                                                                                                                                                                                                                                                               SerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSerSerPheIleProLeuGly 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerGluPheArgGlnGluAlaSerMetLeuHisAlaLeuGlnHisProCysIleValAla
                                                                                                                                           HisLysLysAsnIleIlePheCysAspLeuLysSerAspAsnIleLeuValTrpSerLeu 110
                                                                                                                                                                                                                                                                                                                                                         CTTTATGCTGTTTGCACTTTAGAAGATCCAATTTATATTATTACAGAGTTGATGAGACAT 1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       66141 PENNIE
                        ---GTTGGTGAACATAATATCTACAAAGTAGCAGATTTTGGACTTGCCAGAGTTTTTAAG 1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1155 Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pennie &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6.6e-14
247.00
44.32%
26.76%
6.46%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel Megakaryocytic Protein Tyrosine Kinases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7683-074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2770
99
65
129
78
                                                                                                                                                                                                                                                                         ----- 1343
                                                                127
                                                                                                        1448
                                                                                                                                                                                                                               90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                   US-08-492-723-1
                                                                                                                                                                                                                                                                                                               Sequence 1, Applicati
Patent No. 6531296
GENERAL INFORMATION:
APPLICANT: Liu, E
COUNTE...
ZIP: 28234
ZIP: 28234
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
                                                                                                                                         APPLICANT: Craven, Rolf J.
APPLICANT: Cance, William G.
TITLE OF INVENTION: NUCLEAR TYROSINE KINASE RAK
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
CORRESPE Bell, Seltzer, Park & Gibson
STREET: PO Box 34009
CITY: Charlotte
CITY: Charlotte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1928 AAATAATCCATTCCAAAATACAATGTTATCAAC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1506 GTAGATAATGAAGACATCTATGAATĆTAGAĆĀĆGĀĀATAAAGĆTGCCGGTGAAGTGGĀĆT 1565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATCCAACTGTCCA---CAGCAATTTTACAACATCATGTTGGAGTGCTGGAATGCAGAG
                                                                                                                                                                                                                                                                                                                                                                          Application US/08492723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAAGCACACTAAACCAAGTTATTTTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ValileLysLysAsnSerTyrLeuValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGACTGGGCAACACTGCAGGACAGTCAAGGTCATATATAATTGCTCACTGCCTGGAAAA 2107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AsnThrProGlnGlnAlaLeuAspThrProAlaValValThrCysPheLeuAlaValPro 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATTCAAGTGATAGGATAAAGTTGGCCATGTATTATGAAAAAGATTATTTGTGCATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrAlaThrGluAspGlnLysIleTyrIleTyrThrLeuLysGly---MetCysProLeu 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Glu-----SerArgAsnTyrThrValValAsnThrGluLysGlyLeuMetGluValGln 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAACTTCATAAGATGAACACTGGAGAAGAATATCAAATAATAAAGTAGCAAAACAAATTC 1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACACTGCGTTGGAAACTTGAAGACTATTTTGAAACAGA-CTCTTCATATTCAGATGCAAA 1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAla 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLys 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGACAGGTGCCCAGGTAATCCAGATGTTGGCTCAAAACTATAGA-----CTTCCGCAA 1727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgProValLeuGlyGln 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGTCATTTGGAATCCTTCTTTATGAAATCATTACTTATGGCAAAATGCCTTACAGTGGT 1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PheSerTyrGlyMetValLeuTyrGluLeuLeuSer---GlyGlnArgProAlaLeuGly 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysValAspMet 160
                                                                                                                              No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ArgMetCysCysProGlyMetLysValSerCysGlnLeuGlnValGlnArgSerLeuTrp 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePhe----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTAAGGAACGA------CCTACATTTGAG 1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----SerSerGlnGlyGlnGluTyrThrValValPheTrpAspGlyLysGlu 270
                                                                                                                              6531296th Carolina
                                                                                                                                                                                                                                                                                             Edison T.
en, Rolf J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGCCCGAAGCCATTCGTAGTAATAAATTCAGCATTAAGTCCGATGTA 1613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -GlnSerPheHisGluGlyAlaLeuGlyValGluGlyThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAACTGCACAATCAGTTTATCCTGACA 1987
```

밁 Ś 뭉 Ś В Ś 밁 Ş

Ś 밁

1911

254

203

```
8
                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-836-392-21 (1-728) x US-08-492-723-1 (1-2827)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-492-723-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 919-881-3175
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Sibley, Kenneth D.
REGISTRATION NUMBER: 31,665
REGISTROPOCKET NUMBER: 5470-121
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919-420-2200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/492,723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1388
                                                                                                                                                1610
                                                                                                                                                                                                                               1550
                                                                                                                                                                                                                                                                                                                 1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1343 GGAAGTCTGCAAGAATATCTC---CAAAATGACACTGGATCAAAAATC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1223 AATGACTTCCTGAGGGAGGCACAGATAATGAAGAACCTAAGACATCCAAAGCTTATCCAG 1282
                                                                                                                                                                                                                                                                         128
                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15 SerGluPheArgGlnGluAlaSerMetLeuHisAlaLeuGlnHisProCysIleValAla
HisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgProValLeuGlyGln 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSerSerPheIleProLeuGly 72
                                                                                                                                                                                                                             GTAGATAATGAAGACATCTATGAATCAAGACACGAAATAAAGCTACCGGTGAAGTGGACT 1609
                                                                                                                                                                                                                                                                                                                                                                                             GAGTCTCGGAACTACATTCACAGAGATCTGGCTGCCAGAAATGTCCTC-------
                                                                                                                                                                                                                                                                                                                                                                                                                                       HisLysLysAsnIleIlePheCysAspLeuLysSerAspAsnIleLeuValTrpSerLeu 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ---CATCTGACTCAACAGGTAGACATGGCGGCACAGGTTGCCTCTGGAATGGCCTATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTATGCTGTTTGCACTTTAGAAGATCCAATTTATATATTATTACAGAGTTGATGAGACAT 1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuIleGlyIleSerIle-----HisProLeuCysPheAlaLeuGluLeuAlaProLeu 52
                                                               TGGTCATTTGGAATCCTTCTTTATGAAATCATTACTTATGGCAAAATGCCTTACAGTGGT
                                                                                                    PheSerTyrGlyMetValLeuTyrGluLeuLeuSer---GlyGlnArgProAlaLeuGly 179
                                                                                                                                                                                      ProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysValAspMet 160
                                                                                                                                                                                                                                                                                                              ---GTTGGTGAACATAATATCTACAAAGTAGCAGATTTTGGACTTGCCAGAGTTTTTAAG 1549
                                                                                                                                                                                                                                                                                                                                                    AspValLysGluHisIleAsnIleLysLeuSerAspTyrGlyIleSerArg------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HisMetLeuThrGlnLysIle-----AlaTyrGlnIleAlaSerGlyLeuAlaTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2827 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
410..1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3S: single
linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        eic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.5e-13
243.50
45.25%
27.65%
6.37%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ID NO: 1:
                                                                                                                                                GCGCCCGAAGCCATTCGTAGTAATAAATTCAGCATTAAGTCCGATGTA 1657
                                                                                                                                                                                                                                                                     ----GlnSerPheHisGluGlyAlaLeuGlyValGluGlyThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2827
99
63
117
80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1444
                                                                                                                                                                                                                                                                                                                                                        127
                                                                                                                                                                                                                                                                                                                                                                                                1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-222-616-19/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 19, Application US/08222616 Patent No. 5635177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
FILING DATE: 22-JAN-1992
ATTORNEY/AGENT INFORMATION:
NAME: Lee, Wendy M.
REGISTRATION NUMBER: 07/826935
                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb:
COMPUTER: IBM CC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
                                                                                 PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                      CLASSIFICATION: 530
PRIOR APPLICATION UNMER: PCT/US93/00586
PILING DATE: 22-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: A
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Tsai, Siao Ping
APPLICANT: Wood, William I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: PROTEIN TYROSINE KINASE AGONIST TITLE OF INVENTION: ANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Bennett, APPLICANT: Goeddel,
                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 460 Point San Bruno Blvd CITY: South San Francisco STATE: California
                                                                                                                                                                                                       APPLICATION NUMBER: US/
FILING DATE: 4-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1718 ATGACAGGTGCCCAGGTAATCCAGATGTTGGCTCAAAACTATAGA------CTTCCGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1972 AAATAATAATCCATTCCAAAATACAATGTTATCAAC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1912 TAACTTCATAAGATGAACACTGGAGAAGAATATCAAATAATAAGTAGCAAAACAAATTC 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         308 TrpThrAlaThrGluAspGlnLysIleTyrIleTyrThrLeuLysGly---MetCysPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           288 GlnArgMetCysCysProGlyMetLysValSerCysGlnLeuGlnValGlnArgSerLeu
                                                                                                                                                                                                                                                                                                                                                                              94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LeuAsnThrProGlnGlnAlaLeuAspThrProAlaValValThrCysPheLeu 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTATTGACTGGGCAACACTGC---AGGACAGTCAAGGTGATATATAATTTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACATATTCAAGTGATAGGATAAAGTTGGCCATGTATTATGAAAAAGATTATTTGTGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTAAGGAACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCATCCAACTGTCCA---CAGCAATTTTTACAACATGATGTTGGAGTGCTGGAATGCAGAG 1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Glu-----SerArgAsnTyrThrValValAsnThrGluLysGlyLeuMetGluVal 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACACTGCGTTGGAAACTTGAAGACTATTTTGAAACAGA-CTCTTCATATTCAGATGCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePhe-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAla 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lee, James M.
Matthews, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---SerSerGlnGlγGlnGluTγrThrValValPheTrpAspGlyLγsGlu 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Brian D.
David
                                                                                                                                                                                                                             US/08/222,616
                                                                                                                                                                                                                                                                                                                                360 Kb floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----CAACTGCACAATCAGTTTATCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTACATTTGAG 1852
```

1754

308

327

1781

```
뮍
                                                                                        8
                                                                                                                                     밁
                                                                                                                                                                Ş
                                                                                                                                                                                                             맗
                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                       뭉
                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-836-392-21 (1-728) x US-08-222-616-19 (1-7607)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
TOPOLOGY:
US-08-222-616-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
TELEFAX: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 7607 bases
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER:
                                                                                                                                     2013
                                                                                                                                                                                                               2067
                                                                                                                                                                                                                                                                                       2127 TGGTCATTTGGAATCCTTCTTTATGAAATCATTACTTATGGCAAAATGCCTTACAGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2292 ---GITGGTGAACATAATATCTACAAAGTAGCAGATTTTGGACTTGCCAGAGTTTTTAAG 2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2340 GAGTCTCGGAACTACATTCACAGAGATCTGGCTGCCAGAAATGTCCTC-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2442 GGAAGTCTGCAAGAATATCTC---CAAÁATGACACTGGATCAAAAATC--------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2502 CTTTATGCTGTTTGCACTTTAGAAGATCCAATTTATATTATTACAGAGTTGATGAGACAT 2443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2562 AATGACTTCCTGAGGGAGGCACAGATAATGAAGAACCTAAGACATCCAAAGCTTATCCAG 2503
                    240
                                                                                                                                                                                                                                                                                                                              161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            111 AspValLysGluHisIleAsnIleLysLeuSerAspTyrGlyIleSerArg------
                                                                                                                                                                                                                                                                                                                                                                                                      141 ProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysValAspMet 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      91 HisLysLysAsnIleIlePheCysAspLeuLysSerAspAsnIleLeuValTrpSerLeu 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73 HisMetLeuThrGlnLysIle-----AlaTyrGlnIleAlaSerGlyLeuAlaTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          35 LeulleGlyIleSerIle-----HisProLeuCysPheAlaLeuGluLeuAlaProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15 SerGluPheArgGlnGluAlaSerMetLeuHisAlaLeuGlnHisProCysIleValAla 34
SerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSerSerPheIleProLeuGly
                                                       CCTAAGGAACGA---
                                                                                                                                                                                                                                              HisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgProValLeuGlyGln
                                                                                                                                                                                                                                                                                                                          PheSerTyrGlyMetValLeuTyrGluLeuLeuSer---GlyGlnArgProAlaLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ---CATCTGACTCAACAGGTAGACATGGCGGCACAGGTTGCCTCTGGAATGGCCTATCTG
                                                                                            ProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAla 239
                                                                                                                                     CCATCCAACTGTCCA---CAGCAATTTTACAACATCATGTTGGAGTGCTGGAATGCAGAG
                                                                                                                                                                        ProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLys
                                                                                                                                                                                                             ATGACAGGTGCCCAGGTAATCCAGATGTTGGCTCAAAACTATAGA-----CTTCCGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                             GTAGATAATGAAGACATCTATGAATCTAGACACGAAATAAAGCTGCCGGTGAAGTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15/225-1994
415/952-9881
                                                                                                                                                                                                                                                                                                                                                                   --------GCGCCCGAAGCCATTCGTAGTAATAAATTCAGCATTAAGTCCGATGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7.48e-13
243.50
45.38%
27.73%
6.37%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----GlnSerPheHisGluGlyAlaLeuGlyValGluGlyThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       821P2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7607
99
63
117
79
                                                         CCTACATTTGAG 1933
                                                                                                                                                                        219
                                                                                                                                                                                                                                                                                                                              179
                                                                                                                                     1957
                                                                                                                                                                                                             2014
                                                                                                                                                                                                                                                  199
                                                                                                                                                                                                                                                                                         2068
                                                                                                                                                                                                                                                                                                                                                                   2128
                                                                                                                                                                                                                                                                                                                                                                                                                                             2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            52
                    254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
Alignment Scores
Pred. No.:
                                                         US-08-446-648-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-446-648-19/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 19, Application US/08446648 Patent No. 6331302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent No.
                                                                                                                               TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 7607 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinDatin (Genentech) CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/446,648
                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/222616
FILING DATE: 04.APR-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inc
                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PPLICANT: Tsai, Siao Ping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PPLICANT:
                                                                                                                                                                                                                                                                  NAME: Lee, Wendy M.
REGISTRATION NUMBER: 40,378
REFERENCE/DOCKET NUMBER: PO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ITLE OF INVENTION: PROTEIN TYROSINE KINASE AGONIST ANTIBODIES IMBER OF SEQUENCES: 45
                                                                                              STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                               TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1753 TATTCAAGTGATAGGATAÁÁGTTGGCCATGTÁTTATGAAÁÁAGATTATTTGTGCATTTTÁ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1693 TTGACTGGGCAACACTGC---AGGACAGTCAAGGTGATATATAATTTCCTC 1646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1813 AAATAATCCATTCCAAAATACAATGTTATCAAC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1873 TAACTTCATAAGATGAACACTGGAGAAGAATATCAAATAATAAAGTAGCAAAACAAATTC 1814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1932 ACACTGCGTTGGAAACTTGAAGACTATTTTGAAACAGA-CTCTTCATATTCAGATGCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  328 AsnThrProGlnGlnAlaLeuAspThrProAlaValValThrCysPheLeu 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            309 ThrAlaThrGluAspGlnLysIleTyrIleTyrThrLeuLysGly---MetCysProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          289 ArgMetCysCysProGlyMetLysValSerCysGlnLeuGlnValGlnArgSerLeuTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94080
                                                                                                              Nucleic Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Glu----SerArgAsnTyrThrValValAsnThrGluLysGlyLeuMetGluValGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3: Genentech, Inc.
460 Point San Bruno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bennett, Brian
Goeddel, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matthews, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lee, James M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genentech,
                                                                                                                                                                                                                             415/225-1994
                                                                                              Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --SerSerGlnGlyGlnGluTyrThrValValPheTrpAspGlyLysGlu 270
  7.48e-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         U
                                                                                                                                                                                                                                                                    P0821P3PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bl vd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -CAACTGCACAATCAGTTTATCCTGACA
  7607
```

Qy 240 ThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePhe	Qy 141 ProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysValAspMet 160	yLeuAlaTyrLeu 90 :::	Score: 243.50 Matches: 99 Percent Similarity: 45.38% Conservative: 63 Best Local Similarity: 27.73% Minatches: 117 Ouery Match: 6.37% Indels: 79 DB: US-09-836-392-21 (1-728) x US-08-446-648-19 (1-7607) Qy 15 SerGlupheArgGlnGluhlaSerMetLeuHishlaLeuGlnHisproCysIleValAla 34
Alignment Scores: Pred. No.: 243.50 Score: Score: Percent Similarity: 45.38\$ Best Local Similarity: 6.37\$ Query Match: 7.48e-13 Matches: 99 Conservative: 63 Best Local Similarity: 6.37\$ Query Match: 16 US-09-836-392-21 (1-728) x PCT-US95-04228-19 (1-7607) Qy 15 SerGluPheArgGlnGluAlaSerMetLeuHisAlaLeuGlnHisProCysIleValAla 34	A O A E G O H E E E O H E E E O H E E E O H E E E O H E E E O H E E E O H E E E O H E E E E	NUMBER OF SEQUENCES: 45 CORRESPONDENCE ADDRESS: ADDRESSEE: Generatech, Inc. STREET: 460 Point San Bruno Blvd CITY: South San Francisco STATE: California COUNTRY: USA ZIP: 94080 COMPUTER READABLE FORM: MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: patin (Generatech) CURRENT APPLICATION DATA: APPLICATION NUMBER: PCT/US95/04228 FILING DATE:	Db 1753 TATTCAAGTGATAAGGATAAAGTTGGCCATGTATTATGAAAAAGATTATTTTGTGCATTTTA 1694 Qy 328 AssThrProGlnGlnAlaLeuAspThrProAlaValThrCyspheLeu 344

```
Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ŗ
                                                                                                                       RESULT 11
US-09~221-235-6
                                                                                                                                                                            맑
                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                           Дb
                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
GENERAL INFORMATION:
APPLICANT: ACCOD, SUSAN
TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC ACID MOLECULES AND USES THEREFOR
FILE REFERENCE: MNI-050
CURRENT APPLICATION NUMBER: US/09/221,235
                                                                                     Sequence 6, Application US/09221235
Patent No. 6043040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2175
                                                                                                                                                                                                                                           1753
                                                                                                                                                                                                                                                                                                                                                                                  1813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2442 GGAAGTCTGCAAGAATATCTC---CAAAATGACACTGGATCAAAAATC--------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             53
                                                                                                                                                                                                         AsnThrProGlnGlnAlaLeuAspThrProAlaValValThrCysPheLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGTCATTTGGAATCCTTCTTTATGAAATCATTACTTATGGCAAAATGCCTTACAGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---GTTGGTGAACATAATATCTACAAAGTAGCAGATTTTGGACTTGCCAGAGTTTTTAAG
                                                                                                                                                                          TTGACTGGGCAACACTGC---AGGACAGTCAAGGTGATATATAATTTCCTC
                                                                                                                                                                                                                                          TATTCAAGTGATAGGATAÁÁGTTGGCCATGTÁTTATGAÁÁÁGATTATTTGTGCATTTTÁ
                                                                                                                                                                                                                                                                                                                                             ArgMetCysCysProGlyMetLysValSerCysGlnLeuGlnValGlnArgSerLeuTrp
                                                                                                                                                                                                                                                                                                                                                                                  AAATAATCCATTCCAAAATACAATGTTATCAAC---
                                                                                                                                                                                                                                                                                                                                                                                                                Glu-----SerArgAsnTyrThrValValAsnThrGluLysGlyLeuMetGluValGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAACTTCATAAGATGAACACTGGAGAAGAATATCAAATAATAAGTAGCAAAACAAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACACTGCGTTGGAAACTTGAAGACTATTTTGAAACAGA-CTCTTCATATTCAGATGCAAA 1874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTAAGGAACGA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAla 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGACAGGTGCCCAGGTAATCCAGATGTTGGCTCAAAACTATAGA-----CTTCCGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgProValLeuGlyGln 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PheSerTyrGlyMetValLeuTyrGluLeuLeuSer---GlyGlnArgProAlaLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysValAspMet 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTAGATAATGAAGACATCTATGAATCTAGACACGAAATAAAGCTGCCGGTGAAGTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspValLysGluHisIleAsnIleLysLeuSerAspTyrGlyIleSerArg-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGTCTCGGAACTACATTCACAGAGATCTGGCTGCCAGAAATGTCCTC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HisLysLysAsnIleIlePheCysAspLeuLysSerAspAsnIleLeuValTrpSerLeu 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---CATCTGACTCAACAGGTAGACATGGCGGCACAGGTTGCCTCTGGAATGGCCTATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HisMetLeuThrGlnLysIle-----AlaTyrGlnIleAlaSerGlyLeuAlaTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSerSerPheIleProLeuGly
                                                                                                                                                                                                                                                                          ThrAlaThrGluAspGlnLysIleTyrIleTyrThrLeuLysGly----MetCysProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePhe---------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCATCCAACTGTCCA---CAGCAATTTTACAACATCÁTGTTGGAGTGCTGGAATGCAGAG 1957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ------GlnSerPheHisGluGlyAlaLeuGlyValGluGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----GCGCCCGAAGCCATTCGTAGTAATAAATTCAGCATTAAGTCCGATGTA 2128
                                                                                                                                                                                                                                                                                                              -----CAACTGCACAATCAGTTTATCCTGACA 1754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---SerSerGlnGlyGlnGluTyrThrValValPheTrpAspGlyLysGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTACATTTGAG 1933
                                                                                                                                                                                                           344
                                                                                                                                                                                                                                             1694
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2236
                                                                                                                                                                                                                                                                            327
                                                                                                                                                                                                                                                                                                                                               308
                                                                                                                                                                                                                                                                                                                                                                                                                  288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       127
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     路
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
Query Match:
     S
                                뮍
                                                                 á
                                                                                                       B
                                                                                                                              S
                                                                                                                                                                      밁
                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                               멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-836-392-21 (1-728) x US-09-221-235-6 (1-1365)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-221-235-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT FILING DATE: 1998-12-28
EARLIER APPLICATION NUMBER: 09/
EARLIER FILING DATE:
NUMBER OF SEQ ID NOS: 15
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 6
SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 1365
TYPE: DNA
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                                              165
                                                                                                                                                                                                                                                                                                                                               145
                                                                                                                                                                                                                                                                                                                                                                                  460
                                                                                                                                                                                                                                                                                                                                                                                                                                                   415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               127
                                                                                                           694
                                                                                                                                                                            640
                                                                                                                                                                                                                                             580
                                                                                                                                                                                                                                                                                                              520
                                                                                                                                                                                                                                                                                                                                                                                                                  125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      355
                                                                                                                                         204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          247
                                      751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30
                                                                                                                                                                                                                                                                                                                                                                                GCTGTAÀAGAAGCTCCTCAAAATAGAGAAAAGAGGCAGAAATACTCAGTGTCCTCAGTCAC
       GluLeuCys
                                                                                                                                                                        :::|||
GTAGCTTGGCTTGTAGTGGAAAAAAACGAGAGA-----TTAACCATTCCAAGCAGTTGC
                                                                                                                                                                                                         IleAla---LysLysLeuSerLysGlyIleArgProValLeuGlyGlnProGluGluVal
                                                                                                                                                                                                                                             GTGGTTCTCTGGGAGATGCTAACAAGGGAGGTCCCCTTTAAAGGTTTGGAAGGATTACAA
                                                                                                                                                                                                                                                             MetValLeuTyrGluLeuLeuSerGlyGlnArgProAlaLeuGlyHisHisGlnLeuGln
                                                                                                                                                                                                                                                                                                             GCTCCAGAAGTTATCCAGAGTCTCCCTGTGTCAGAAACTTGTGACACATATTCCTATGGT
                                                                                                                                                                                                                                                                                                                                           AlaProGluIleArgProArgIleValTyrAspGluLysValAspMetPheSerTyrGly
                                                                                                                                                                                                                                                                                                                                                                                                               IleSerArgGlmSerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyrGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeuSerAspTyrGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATTATTTACATATGGAGGCTCCTGTCAAGGTGATTCACAGAGACCTCAAGTCAAGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AlaTyrLeuHisLysLys-----AsnIleIlePheCysAspLeuLysSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGATGGATATGGATCACATTATGACCTGG-----GCCACTGATGTAGCCAAAGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GluLeuAlaProLeuSerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProCysIleValAlaLeuIleGlyIleSerIleHisproLeuCysPheAlaLeu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AlaMetLysAsnPheSerGluPheArgGlnGluAlaSerMetLeuHisAlaLeuGlnHis
                                                                                                                                      GlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLysProGluLysArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTTGTTATAGCTGCTGATGGAGTA------CTGAAGATCTGTGACTTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PheIleProLeuGlyHisMetLeuThrGlnLysIleAlaTyrGlnIleAlaSerGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAATATGCTTCTCTGGGATCACTCTATGATTACATTAACAGTAACAGA-----AGTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAAACATCATCCAGTTTTATGGAGTAATTCTTGAACCTCCCAACTATGGCATTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1) .. (1365)
                                       CCATCATTCAAGCAAATCATTTCAATCCTGGAGTCCATGTCAAATGACACGAGCCTTCCT
                                                                      ProLeuAlaLeuSerValValSerGlrMetLysAspProThrPheAlaThrPheMetTyr
                                                                                                         CCC---AGAAGTTTTGCTGAACTGTTACATCAGTGTTGGGAAGCTGATGCCAAGAAACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5,13e-14
243.00
49.79%
29.22%
6.36%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09/163,115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1365
71
50
104
18
```

750

184 184 639 203 144 519 104 414 124 87

67

47

750 223 693

```
US-09-836-392-21 (1-728) x US-09-221-928-6 (1-1365)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; NAME/KEY: CDS
; LOCATION: (1)
US-09-221-928-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 12
US-09-221-928-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: ACCOD, SUSAN
TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC ACID MOLECULES AND USES THEREFOR
FILE REFERENCE: MNI-050
CURRENT APPLICATION NUMBER: US/09/221,928
CURRENT FILING DATE: 1998-12-28
EARLIER APPLICATION NUMBER: 09/163,115
EARLIER FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence 6, Application US/09221928
Patent No. 6121030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENGTH:
                                                                                                                        520
                                                                                                                                                               145
                                                                                                                                                                                                                                     125 IleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyrGln 144
                                                                                                                                                                                                                                                                                   415
                                                                                                                                                                                                   355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      811
                                                                                                                                                                                                                                                                                                                     105 IleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeuSerAspTyrGly 124
                                                                                                                                                                                                                                                                                                                                                                                                                                            301 GAGATGGATATGGATCACATTATGACCTGG------ĠCCACTGATGTAGCCAAAGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           187
                                                                                                                                                                                                                                                                                                                                                                                                        88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     127 GCTGTAAAGAAGCTCCTCAAAATAGAGAAAĞAĞĞCAĞAAATACTCAGTGTCCTCAGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            48 GluLeuAlaProLeuSerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSerSer 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30 ProCysIleValAlaLeuIleGlyIleSerIleHisProLeuCysPheAlaLeu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 AlaMetLysAsnPheSerGluPheArgGlnGluAlaSerMetLeuHisAlaLeuGlnHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1365
                                                                              MetValleuTyrGluLeuLeuSerGlyGlnArgProAlaLeuGlyHisHisGlnLeuGln
                                                                                                                                                                                                                                                                               GTTGTTATAGCTGCTGATGGAGTA-------CTGAAGATCTGTGACTTTGGT
  IleAla---LysLysLeuSerLysGlyIleArgProValLeuGlyGlnProGluGluVal 20:
                                                                                                                    GCTCCAGAAGTTATCCAGAGTCTCCCTGTGTCAGAAACTTGTGACACATATTCCTATGGT 579
                                                                                                                                                                                                                                                                                                                                                                                                 AlaTyrLeuHisLysLys-----AsnIleIlePheCysAspLeuLysSerAspAsn 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAATATGCTTCTCTGGGATCACTCTATGATTACATTAACAGTAACAGA-----AGTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAAACATCATCCAGTTTTATGGAGTAATTCTTGAACCTCCCAACTATGGCATTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACAAGTGT
                                          GTGGTTCTCTGGGAGATGCTAACAAGGGAGGTCCCCTTTAAAGGTTTTGGAAGGATTACAA
                                                                                                                                                        AlaProGluIleArgProArgIleValTyrAspGluLysValAspMetPheSerTyrGly 164
                                                                                                                                                                                                                                                                                                                                                             CATTATTTACATATGGAGGCTCCTGTCAAGGTGATTCACAGAGACCTCAAGTCAAGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PheIleProLeuGlyHisMetLeuThrGlnLysIleAlaTyrGlnIleAlaSerGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (1) .. (1365)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5.13e-14
243.00
49.79%
29.22%
6.36%
3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1365
71
50
104
18
                                        639
                                                                              184
                                                                                                                                                                                                   519
                                                                                                                                                                                                                                                                                                                                                             414
                                                                                                                                                                                                                                                                                                                                                                                                                                          354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  87
                                                                          Ş
                                                                                                                    밁
                                                                                                                                                  Š
                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                          片
S
                                      밁
                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-836-392-21 (1-728) x US-09-221-527-6 (1-1365)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; LOCATION: (1)..(1365)
US-09-221-527-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-09-221-527-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/221,527
CURRENT FILING DATE: 1998-12-28
EARLIER APPLICATION NUMBER: 09/163,115
EARLIER FILING DATE:
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 6
LENGTH: 1365
LENGTH: 1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: ACCON, SUSAN
TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC ACID MOLECULES AND USES THEREFOR
FILE REFERENCE; MNI-050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. 6146832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 1365
TYPE: DNA
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: CDS
LOCATION: (1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                640
  125
                                                                                                                      355
                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                               247
                                                                                                                                                                                                                                                                                                                                                             187 AGAAACÁTCATCCAGTTTTATGGÁGTAATTCTTGAACCTCCCAACTATGGCATTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                          127 GCTGTAAAGAAGCTCCTCAAAATAGAGAAGAGGCAGAAATACTCAGTGTCCTCAGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         811 GACAAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               244 GluLeuCys 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       204 GlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLysProGluLysArg
                                                                                                                                                          88
                                                                                                                                                                                                                                       89
                                                                                                                                                                                                                                                                                                                                                                                                    30
                                                                                                                                                                                                                                                                                                                   48 GluLeuAlaProieuSerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10 AlaMetLysAsnPheSerGluPheArgGlnGluAlaSerMetLeuHisAlaLeuGlnHis
  IleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyrGln
                                        GTTGTTATAGCTGCTGATGGAGTA-----
                                                                                                                    CATTATTTACATATGGAGGCTCCTGTCAAGGTGATTCACAGAGACCTCAAGTCAAGAAAC
                                                                                                                                                      AlaTyrLeuHisLysLys-----AsnIleIlePheCysAspLeuLysSerAspAsn
                                                                                                                                                                                              GAGATGGATATGGATCACATTATGACCTGG-----GCCACTGATGTAGCCAAAGGAATG
                                                                            IleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeuSerAspTyrGly
                                                                                                                                                                                                                                     PheIleProLeuGlyHisMetLeuThrGlnLysIleAlaTyrGlnIleAlaSerGlyLeu
                                                                                                                                                                                                                                                                               GAATATGCTTCTCTGGGATCACTCTATGATTACATTAACAGTAACAGA-----AGTGAG 300
                                                                                                                                                                                                                                                                                                                                                                                               ProCysIleValAlaLeuIleGlyIleSerIleHisProLeuCysPheAlaLeu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/09221527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAlaThrPheMetTyr 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTAGCTTGGCTTGTAGTGGAAÁÁAAACGAGÁGÁ-----TTÁACCATTCCÁAGCAGTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCATCATTCAAGCAAATCATTTCAATCCTGGAGTCCATGTCAAATGACACGAGCCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCC---AGAAGTTTTGCTGAACTGTTACATCAGTGTTGGGAAGCTGATGCCAAGAAACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5.13e-14
243.00
49.79%
29.22%
6.36%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps:
                                      ---ctgäägatctgtgactttggt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1365
71
50
104
18
```

Š

맑 S

밁 8 밁 Ş 뮍 Ó 밁 S 밁 Ś 멍

246

47 186 29

67

459

414 104 354 87

몺 Ó B Ś

459

414

354

164

579

243

750 223 693 203 639

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                             Ş
                                                                                                   밁
                                                                                                                              Ş
                                                                                                                                                                    밁
                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
US-09-221-236-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                밁
                                                                                                                                                                                                                                    US-09-836-392-21 (1-728) x US-09-221-236-6 (1-1365)
                                                                                                                                                                                                                                                                                        Query Match:
                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                            ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(1365)
US-09-221-236-6
                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 6, Applic
Patent No. 6146841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/221,236
CURRENT FILING DATE: 1998-12-28
EARLIER APPLICATION NUMBER: 09/163,115
EARLIER FILING DATE: 1998-09-29
NUMBER OF SEQ ID NOS: 15
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Acton, Susan
TITLE OF INVENTION: NOVEL
FILE REFERENCE: MNI-050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ENGTH: 1365
                                                                                                                                                                                                                                                                                                                                                             No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        460
                                  247
                                                                                                   187 AGAAACATCATCAGTTTTATGGAGTAATTCTTGAACCTCCCAACTATGGCATTGTCACA
                                                                                                                                                                      127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 640
                                                                  48
   83
                                                                                                                                  30 ProCysIleValAlaLeuIleGlyIleSerIleHisProLeuCysPheAlaLeu-----
                                                                                                                                                                                                     10 AlaMetLysAsnPheSerGluPheArgGlnGluAlaSerMetLeuHisAlaLeuGlnHis
                                                                                                                                                                    GCTGTAAAGAAGCTCCTCAAAATAGAGAAAAGAGGCAGAAATACTCAGTGTCCTCAGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACAAGTGT
                                                                 GluLeuAlaProLeuSerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GluLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLysProGluLysArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTAGCTTGGCTTGTAGTGGAAAAAAACGAGAGA----TTAACCATTCCAAGCAGTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IleAla---LysLysLeuSerLysGlyIleArgProValLeuGlyGlnProGluGluVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGGTTCTCTGGGAGATGCTAACAAGGGAGGTCCCCTTTAAAGGTTTGGAAGGATTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MetValleuTyrGluLeuLeuSerGlyGlnArgProAlaLeuGlyHisHisGlnLeuGln 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AlaProGluIleArgProArgIleValTyrAspGluLysValAspMetPheSerTyrGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAATATGCTTCTCTGGGATCACTCTATGATTACATTAACAGTAACAGA-----AGTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCATCATTCAAGCAAATCATTTCAATCCTGGAGTCCATGTCAAATGACACGAGCCTTCCT 810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAlaThrPheMetTyr 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCC---AGAAGTTTTGCTGAACTGTTACATCAGTGTTGGGAAGCTGATGCCAAGAAACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCCAGAAGTTATCCAGAGTCTCCCTGTGTCAGAAACTTGTGACACATATTCCTATGGT
 PheIleProLeuGlyHisMetLeuThrGlnLysIleAlaTyrGlnIleAlaSerGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/09221236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                      5.13e-14
243.00
49.79%
29.22%
6.36%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CSAPK-1 NUCLEIC
                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
                                                                                                                                                                                                                                                                                                      Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                        Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACID MOLECULES AND USES THEREFOR
                                                                                                                                                                                                                                                                      1365
71
50
104
18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     579
   87
                                                                 67
                                                                                                   246
                                                                                                                                    47
                                                                                                                                                                    186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 15
US-09-221-416-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
Ş
                                                                  Query Match:
DB:
                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                     ; NAME/KEY: CDS
; LOCATION: (1)..(1365)
US-09-221-416-6
                                US-09-836-392-21 (1-728) x US-09-221-416-6 (1-1365)
                                                                                                                                     Score:
                                                                                                                                                      Pred. No.:
                                                                                                                                                                    Alignment Scores:
                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn
SEQ ID NO 6
LENGTH: 1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 6, Application US/09221416
Patent No. 6153417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Acton, Susan
TITLE OF INVENTION: NOVEL CSAPK-1 NUCLEIC ACID MOLECULES AND USES THEREFOR
FILE REFERENCE; MUI-050
CURRENT APPLICATION NUMBER: US/09/221,416
CURRENT FILING DATE: 1998-12-28
EARLIER APPLICATION NUMBER: 09/163,115
EARLIER FILING DATE: 1998-09-29
NUMBER: OF SEQ ID NOS: 15
                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                          ORGANISM: Homo
                                                                                                                                                                                                                                                                                          TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 105 IleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeuSerAspTyrGly 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   244 GluLeuCys 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88 AlaTyrLeuHisLysLys-----AsnIleIlePheCysAspLeuLysSerAspAsn 104
10 AlaMetLysAsnPheSerGluPheArgGlnGluAlaSerMetLeuHisAlaLeuGlnHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MetValLeuTyrGluLeuLeuSerGlyGlnArgProAlaLeuGlyHisHisGlnLeuGln 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGATGGATATGGATCACATTATGÁCCTGG-----GCCACTGATGTAGCCAAAGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAlaThrPheMetTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLysProGluLysArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTAGCTTGGCTTGTAGTGGAAAAAAAACGAGAGA----TTAACCATTCCAAGCAGTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IleAla---LysLysLeuSerLysGlyIleArgProValLeuGlyGlnProGluGluVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGTTCTCTGGGAGATGCTAACAAGGGAGGTCCCCTTTAAAGGTTTGGAAGGATTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTCCAGAAGTTATCCAGAGTCTCCCTGTGTCAGAAACTTGTGACACATATTCCTATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AlaProGluIleArgProArgIleValTyrAspGluLysValAspMetPheSerTyrGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyrGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTTGTTATAGCTGCTGATGGAGTA------CTGAAGATCTGTGACTTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATTATTTACATATGGAGGCTCCTGTCAAGGTGATTCACAGAGACCTCAAGTCAAGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCC---AGAAGTTTTGCTGAACTGTTACATCAGTGTTGGGAAGCTGATGCCAAGAAACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCATCATTCAAGCAAATCATTTCAATCCTGGAGTCCATGTCAAATGACACGAGCCTTCCT
                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                         Ver.
                                                                             5.13e-14
243.00
49.79%
29.22%
6.36%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        =
::
::
::
                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                  1365
71
50
104
18
```

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Дb
                                                                                                                                                                                                                                                                                                                                                                 640 GTAGCTTGGCTTGTAGTGGAAAAAAACGAGAGA-----TTAACCATTCCAAGCAGTTGC 693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             520 GCTCCAGAAGTTATCCAGAGTCTCCCTGTGTCAGAAACTTGTGACACATATTCCTATGGT 579
                                                                                                                                                                                                                                            694 CCC---AGAAGTTTTGCTGAACTGTTACATCAGTGTTGGGAAGCTGATGCCAAGAAACGG
                                                                                                                                                                                                                                                                                                   204 GlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLysProGluLysArg 223
                                                                                                                                                                                                                                                                                                                                                                                                                           185 IleAla---LysLysLeuSerLysGlyIleArgProValLeuGlyGlnProGluGluVal 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     580 GTGGTTCTCTGGGAGATGCTAACAAGGGAGGTCCCCTTTAAAGGTTTGGAAGGATTACAA 639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                165 MetValleuTyrGluLeuLeuSerGlyGlnArgProAlaLeuGlyHisHisGlnLeuGln 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    145 AlaProGluIleArgProArgIleValTyrAspGluLysValAspMetPheSerTyrGly 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     460 GCCTCTCGGTTCCATAACCATACAACACACATGTCCTTGGTAGAACTTTCCCATGGATG 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            125 IleŞerArgGinSerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyrGln 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             415 GTTGTTATAGCTGCTGATGGAGTA------CTGAAGATCTGTGACTTTGGT 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    105 IleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeuSerAspTyrGly 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     355 CATTATTTACATATGGAGGCTCCTGTCAAGGTGATTCACAGAGACCTCAAGTCAAGAAAC 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 GAGATGGATATGGATCACATTATGACCTGG-----GCCACTGATGTAGCCAAAGGAATG 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              247 GAATATGCTTCTCTGGGATCACTCTATGATTACATTAACAGTAACAGA-----AGTGAG 300
                                                             244 GluLeuÇys 246
                                                                                                                                                                                  224 ProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAlaThrPheMetTyr 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              751 CCATCATTCAAGCAAATCATTTCAATCCTGGAGTCCATGTCAAATGACACGAGCCTTCCT 810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     48 GluLeuAlaProLeuSerSerLeuAsnThrValLeuSerGluAsnAlaArgAspSerSer 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88 AlaTyrLeuHisLysLys------AsnIleIlePheCysAspLeuLysSerAspAsn 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 68 PheIleProLeuGlyHisMetLeuThrGlnLysIleAlaTyrGlnIleAlaSerGlyLeu 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30 ProCysIleValAlaLeuIleGlyIleSerIleHisProLeuCysPheAlaLeu----- 47
GACAAGTGT
```

Search completed: December 14, 2003, 07:28:19
Job time : 154 secs

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -Q=/cgn2 1/USPTO spool p/US09356392/runat 12122003 142520 1122/app query.fasta_1.903
-DB=Published_Applications NA -QFWT=fastap SUFFTX=rnpb -MINNATCH=0.1
-LOOPCL=0 -LOOPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=blosum62
-TRANS=human40.cdi -LIST=45 -DCCALIGN=200 -THH SCORE=pct -THH MAX=100
-THH MIN=0 -ALIGN=15 -MODE=LOCAL -CUTFWT=pto -NORM-ext -HEAPSIZE=500 -MINLEN=0
-MAXTEN=2000000000 -USER=US09336392 @CGN 1 1 107 @runat 12122003 142520 1122
-NCPU=6 -ICPU=3 -NO_MMAP -LARGEQUERY -NEG SCORES=0 -WAIT -DSPBLOCK=100
-LONGLOG -DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPDP=10 -XGAPDEXT=0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Command line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
   Query
Score Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ygapop 10.0,
Ygapop 10.0,
Fgapop 6.0,
Delop 6.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Published_Applications_NA: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         December 14, 2003, 07:24:52 ; Search time 538 Seconds
(without alignments)
4497.361 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3822
1 MLRHLRATDAMKNFSEFRQE......IFYQSYEELGRLEACTRKRR 728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2201672 seqs, 1661799599 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-836-392-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                              /cgn2_6/ptodata/1/pubpna/US08 NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US08 PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US08 PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09 PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09 PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09 NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US09 NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _6/ptodata/1/pubpna/PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /ptodata/1/pubpna/us06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Xgapext
Ygapext
Fgapext
Delext
      Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /pubpna/US07_PUBCOMB.seq:*/pubpna/PCT_NEW_PUB.seq:*/pubpna/US06_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4403344
Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-836-392-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 8, Application US/09836392
Patent No. US20020173458A1
```

ALIGNMENTS

```
GENERAL INFORMATION:
APPLICANT: Ruben et al.
TITLE OF INVENTION: Protein Tyrosine Kinase Receptor Polynucleotides, Polypept:
TITLE OF INVENTION: Antibodies
FILE REFERENCE: PTO20P1
CURRENT APPLICATION NUMBER: US/09/836,392
CURRENT FILING DATE: 2001-04-18
PRIOR APPLICATION NUMBER: PCT/US00/28066
PRIOR FILING DATE: 2000-10-11
PRIOR APPLICATION NUMBER: 60/159,542
PRIOR FILING DATE: 1909-10-15
PRIOR APPLICATION NUMBER: 60/159,944
PRIOR PPLICATION NUMBER: 60/155,914
PRIOR PPLICATION NUMBER: 60/165,914
PRIOR FILING DATE: 1999-11-17
PRIOR FILING DATE: 1999-11-17
PRIOR FILING DATE: 1999-11-17
PRIOR FILING DATE: 1990-03-14
PRIOR FILING DATE: 1990-03-14
PRIOR PRICING DATE: 2000-03-14
PRIOR PRICING DATE: 2000-03-14
PRIOR PRICING DATE: PRICING DATE: 2000-03-14
PRIOR PRICING DATE: DATE: 2000-03-14
PRIOR PRICING DATE: DATE: 2001-03-14
PRIOR PRICING DATE: 2000-03-14
PRIOR PRICING DATE: 2000-03-14
PRIOR PRICING DATE: 2001-03-14
PRIOR
```

Qy 241 PheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePheSerSerGlnGlyGlnGlu 260	Oy 201 GluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLysPro 220	Qy 161 PheSerTyrGlyMetValLeuTyrGluLeuLeuSerGlyGlnArgProAlaLeuGlyHis 180	Oy 121 SerAspTyrGlyIleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThr 140	Qy 81 TyrGlnIleAlaSerGlyLeuAlaTyrLeuHisLysLysAsnIleIlePheCysAspLeu 100	Qy 41 HisProLeuCysPheAlaLeuGluLeuAlaProLeuSerSerLeuAsnThrValLeuSer 60	Qy 1 MetLeuArgHisLeuArgAlaThrAspAlaMetLysAsnPheSerGluPheArgGlnGlu 20	imilar imilar I Simi ch:	GANISM:
Q	5 8 8 8	, p & d	5	5 B & B &	S	5 8 8 8	40 40 V	φ φ
22 TGCGACAGGTCTGAGCATGACCTGACCCCCATGACCGGGGGAACCTTCAGCCAGC	561 PROFROATGELINALAALIS SETFETOSET SET CALASELS SELECT SO SELECT SET SELECT SELECT SO SELECT	82 CCTGAGGGGGACTCCATCGCGGACGTGAGCATCATGTACAGTGAGGAGCTGGGCACGCAG 1 11	62 ACCTACCAGCTGTGTGCCCGGTACTTCTGCCGGGGTCCCCAGCCCCTCAGGGACATGTTT 1 01 ProValArgProLeuAspThrGluProProAlaAlaSerHisThrAlaAsnProLysVal 5	2 GAGCCCTACATGCCCCCTCCATGCTTACGTCAGTCGTGTGCAGCTCTTGAGGCCAGAGGG 14 42 GAGCCCTACATGCCCCCTCCATGCTTACGTCAGTCGTGTCAGCTCTTGAGGCCAGAGGG 14 61 GluGluValValTrpCyeLeuAspAspLysAlaAsnSerLeuValWetTyrHisSerThr 48 61 GluGluValValTrpCyeLeuAspAspLysAlaAsnSerLeuValWetTyrHisSerThr 48 62 GAGGAGGTCGTCTGGTGCCTGGATGACAAGGCCAACTCCTTGGTGATGTACCACTCCACC 14 63 GAGGAGGTCGTCTGGTGCCTGGATGACAAGGCCAACTCCTTGGTGATGTACCACTCCACC 14	22 CAGAACCCCTACCCAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCTGAGGTCTGGTAC 1 23 CAGAACCCCTACCCAGTGAAGGCCATGGAGGTCGTAACAGCGGCTCTGAGGTCTGGTAC 1 24 SerAsnGlyProGlyLeuLeuVallleAspCysAlaSerLeuGluIleCysArgArgLeu 4 25 SerAsnGlyProGlyLeuLeuVallleAspCysAlaSerLeuGluIleCysArgArgLeu 4 26	361 ALASBGLYLEUVALAIWALPINEPTOVALVALAGGLYKIREPTOLYSASBSETTYSSET 1102 GCCGATGGGCTTGTGGCTGTTTTCCCGTGGTGCGGGGCACCCCAAAGGACAGCTGCTCC 1161 381 TyrLeuCysserHisThrAlaAsnArgSerLysPheSerlleAlaAspGluAspAlaArg 400 81 TyrLeuCysserHisThrAlaAsnArgSerLysPheSerlleAlaAspGluAspAlaArg 400 81 TyrLeuCysserHisThrAlaAsnArgSerCysPheSerll	21 LeuLysGlyMetCysProLeuAsnThrProGlnGlnAlaLeuAspThrProAlaValaVal 34	301 LeuGlnValGlnArgSerLeuTrpThrAlaThrGluAspGlnLysIleTyrIleTyrThr 320

Db 4484 TCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGCGCCCTAGGCCTGGAGGCACT 4543 Qy 141 ProGlyTyrGlnAlaProGlulleArgProArgIleValTyrAspGluLysValAspMet 160	121 SerAspTyrGlyIleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThr 140	Qy 101 LysSerAspAsnIleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeu 120	Qy 81 TyrGlnIleAlaSerGlyLeuAlaTyrLeuHisLysLysAsnIleIlePheCysAspLeu 100	Qy 61 GluhsnhlahrghspSerSerPhelleProLeuGlyHisMetLeuThrGlnLysIlehla 80	Qy 41 HisProLeuCysPheAlaLeuGluLeuAlaProLeuSerSerLeuAsnThrValLeuSer 60	Qy 21 AlaSerMetLeuHisAlaLeuGlnHisProCysIleValAlaLeuIleGlyIleSerIle 40	Qy 1 MetLeuArgHisLeuArgAlaThrAspAlaMetLysAsnPheSerGluPheArgGlnGlu 20	93.66% Indels: 15 Gaps: 8) x US-10-132-382-5 (1-7015)	it Similarity: 94.51%	0 Length: 3579.50 Matches:	; ORGANISM: Homo sapiens US-10-132-382-5	; SOFTWARE: PatentIn Ver. 2.1 ; SEQ ID NO 5 ; LENGTH: 7015 ; TYPE: DNA	; FILE REFERENCE: SCH-1811 ; CURRENT APPLICATION NUMBER: US/10/132,382 ; CURRENT FILING DATE: 2002-04-26 ; NUMBER OF SEQ ID NOS: 26	; FULLICACION NO. US20030045599AI ; GENERAL INFORMATION: ; APPLICANT: WEISS, BERTRAM ; TITLE OF INVENTION: MEMBRANE RECEPTORS FOR STEROIDS AND STEROIS	RESULT 2 US-10-132-382-5 US-10-132-382-5 Sequence 5, Application US/10132382	Qy 721 GluAlaCysThrArgLysArgArg 728	OY O1 GIYITGGIYALAAFGGIUPHAASDILEPHATYTGINSETTYTGIUGIULEUGIYATGLEU 720	2062 GACACTGTTGTGCACCTTTGAAAATGAAAACACAGAGTGGTGCCTGGCCGTCTGGAGG	681 AspThrValValCysThrPheGluAsnGluAsnThrGluTrpCysLeuAlaValTrpArg	Db 2002 TTAAAAGCCCGAGAGCTGACTGCCGCATGGGGTGCTGGTGGATGCTGGTGGTGGTGCCAAAG 2061
ע שם	Db Qy	Db QY	d dd dy	Qγ	Qγ	Qγ	Db Db	Ωy	дb	, Qy	Qγ	da VQ	Qy da	Ωγ	ם מ	O B (O B	S D	δ	מם
501 ProValArgProLeuAspThrGluProProAlaAlaSerHisThrAlaAsnProLysVal 520 	481 ThrTyrGlnLeuCysAlaArgTyrPheCysGlyValProSerProLeuArgAspMetPhe 500	461 GIUGIUVALVAITTPCYSLEUASPASPLYSAIAASNSCELEUVAIMECTYRHISSETTH 480 	GluProTyrMecAlaProSerMetValThrSerValValValCyrMecAlaProSerMelValValValCyrMecAlaProSerMelValValValValCyrMecAlaProSerMelValValValValValValValValValValValValVal	1 SerAnGlyProGlyLeuLeuValIleAspCysAlaSerLeuGluIleCysArgArgLeu 44	7	TyrLeuCysSerHisThrAlaAsnArgSerLysPheSerIleAlaAspGluAspAlaArg 4	361 AlaAspGlyLeuValAlaValPheProValValArgGlyThrProLy8AspSerCysSer 380	341 ThrcysPheLeuAlaValProValIleLysLysAsnSerTyrLeuValLeuAlaGlyLeu 360 	5.9	321 LeuLysGlyMetCysProLeuAsnThrProGlnGlnAlaLeuAspThrProAlaValVal 340	301 LeuGlnValGlnArgSerLeuTrpThrAlaThrGluAspGlnLysIleTyrIleTyrThr 320	281 GluLysGlyLeuMetGluValGlnArgMetCysCysProGlyMetLysValSerCysGln 300	261 TyrThrValValPheTrpAspGlyLysGluGluSerArgAsnTyrThrValValAsnThr 280	241 PheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePheSerSerGlnGlyGlnGlu 260	GAGAAGCGACCGCTGGCCCTGTCGGTGGTGAGCCAGATGAAGGACCCGACTTTTGCCACC	GAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACTAAGCCA	4664 CACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCGGTTCTGGGGCAGCCG 4723	4604 TTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACTGGGCCAC 4663 181 HisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgProValLeuGlyGlnPro 200	161 PheSerTyrGlyMetValleuTyrGluLeuLeuSerGlyGlnArgProAlaLeuGlyHis 180	4544 CCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGAAGGTAGATATG 4603

Alignment Scores: Pred. No.: \$ 507e: Percent Similarity: Pest Local Similarity: Query Match: Ousservative: 93.66% Indels: DB: US-09-836-392-21 (1-728) x US-10-132-382-1 (1-7093)	OF SEQ ID NOS: 26 IE: Patentin Ver. 2.1 IO 1 I: 7093 DNA SM: Homo sapiens	lication US2003(TION: SS, BER? TION: MI SCH-18 SCH-18 ATION NU	Qy 701 GlyTrpGlyAlaArgGluPheAspIlePheTyrGluSerTyrGluGluLeuGlyArgLeu 720	Qy 661 LeuLysAlaArgGluLeuThrProH:sGlyValLeuValAspAlaAlaValValAlaLys 680	Qy 621 GlnAlaVallySileLeuAlaValArgAspLeuIleTrpValProArgArgGlyGlyAsp 640	Qy 581 SerValProPheSerThrAspCysGluAspSerAspMetLeuHisThrProGlyAlaAla 600	Qy 521 ProGluGlyAspSerIleAlaAspValSerIleMetTyrSerGluGluLeuGlyThrGln 540
Q	\$ \$ \$ \$ \$	B & B & B ;	S B S B S	S B S B 8	5 B & B &	. B & B &	? B & B & B &
321 LeuLysGlyMetCysProLeuAsnThrProGlnGlnAlaLeuAspThrProAlaVallVal 340 5137	GluLysGlyLeuMetGluValGlnArgMetCysCysProGlyMetLysValSerCysGln	GAGAAGCGACCGCTGGCCCTGTCGGTGGTGAAGCCAGATGAAGGACCCGACTTTTGCCACC PhemetTyrGluLeuCysCysGlyLysGlnThrAlaPhePheSerSerGlnGlyGlnGlu				TACCAGATCGCCTCGGCCTGCCACAGAAAAAACCCTGCTCTCTTTGTGACCTGCACAGAAAAAAACCCTGCAGAAAAAAAA	MetLeuArgHisLeuArgAlaThrAspAlaMetLysAsnPheSerGluPheArgGlnGlu

5 B 5 B 5 B

```
6185
                                                                                                                  6125
                                                                                                                                                                                   6065
                                                                                                                                                                                                                                                  6005
                                                                                                                                                                                                                                                                                                                   5945
                                                                                                                                                                                                                                                                                                                                                                                  5885
                                                                                                                                                                                                                                                                                                                                                                                                                                                    5825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5165
                                                                                                                                                189
                                                                                                                                                                                                                                                                                  641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   521
                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                 621
                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                   721
                                                                                  701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         401
GluAlaCysThrArgLysArgArg
                                                                                                                ASPThrValValCysThrPheGluAsnGluAsnThrGluTrpCysLeuAlaValTrpArg
                                                                                                                                                                                                   LeuLysAlaArgGluLeuThrProHisGlyValLeuValAspAlaAlaValValAlaLys
                                                  GGCTGGGGCGCCAGGGAGTTCGACATTTTCTACCAGTCCTACGAGGAGCTGGGCCGGCTG
                                                                           GlyTrpGlyAl
                                                                                                                                                                                                                                                  GTTATCGTCATTGGCCTGGAGAAGGATTCTGGCGCCCAGCGGGGCCGAGTCATTGCCGTC
                                                                                                                                                                                                                                                                     VallleVallleGlyLeuGluLysAspSerGluAlaGlnArgGlyArgVallleAlaVal
                                                                                                                                                                                                                                                                                                                                              GlnAlaValLysIleLeuAlaValArgAspLeuIleTrpValProArgArgGlyGlyAsp
                                                                                                                                                                                                                                                                                                                                                                                                    SerAspArgSerGluHisAspLeuThrProMetAspGlyGluThrPheSerGlnHisLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerValProPheSerThrAspCysGluAspSerAspMetLeuHisThrProGlyAlaAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProProArgGlnAlaAlaArgSerProSerSerLeuProSerSerProAlaSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCCTGATCCACCAGGAATCACTCACTGACTACTGCTCCATGTCCTCCTACTCCTCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IleLeuIleHisGlnGluSerLeuThrAspTyrCysSerMetSerSerTyrSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProGluGlyAspSerIleAlaAspValSerIleMetTyrSerGluGluLeuGlyThrGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluGluValValTrpCysLeuAspAspLysAlaAsnSerLeuValMetTyrHisSerThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCCCTACATGGCCCCCTCCATGGTTACGTCAGTCGTGTGCAGCTCTGAGGGCAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GluProTyrMetAlaProSerMetValThrSerValValCysSerSerGluGlyArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerAsnGlyProGlyLeuLeuVallleAspCysAlaSerLeuGluIleCysArgArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlnAsnFroTyrProValLysAlaMetGluValValAsnSerGlySerGluValTrpTyr
                                                                                                                                                                                                                                                                                                                 CAGGCCGTGAAGATCCTCGCCGTCAGAGACCTCATTTGGGTCCCCAGGCGCGCGGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTGTGCCTTTCTCCACCGACTGCGAGGACTCAGACATGCTACATACGCCCGGTGCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ccaccoccaeecreccaeercccccrcaaecrecccaecraeccaecaaerrerrec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGAGGGGGACTCCATCGCGGACGTGAGCATCATGTACAGTGAGGAGCTGGGCACGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProValArgProLeuAspThrGluProProAlaAlaSerHisThrAlaAsnProLysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCTACCAGCTGTGTGCCCGGTACTTCTGCGGGGTCCCCAGCCCCCTCAGGGACATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrTyrGlnLeuCysAlaArgTyrPheCysGlyValProSerProLeuArgAspMetPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGAGGTCGTCTGGTGCCTGGATGACAAGGCCAACTCCTTGGTGATGTACCACTCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGAACCCCTACCCAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCTGAGGTCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TACCTGTGCTCACACACAGCCCAACAGGTCCAAGTTCAGCATCGCGGATGAAGACGCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrLeuCysSerHisThrAlaAsnArgSerLysPheSerIleAlaAspGluAspAlaArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCGATGGGCTTGTGGTTGTTTCCCGTGGTGCGGGGCACCCCAAAGGACACCTGCTCC
                                                                                                                                                                               TTAAAAGCCCGAGAGCTGACTCCGCATGGGGTGCTGGTGGATGCTGCCGTGGTGGCAAAG
                                                                                                                                                                                                                                                                                                                                                                                  AGCAATGGGCCGGGCCTCCTTGTCATCGACTGTGCCTCCCTGGAGATCTGCAGGCGGCTG
                                                                        |aArgGluPheAspIlePheTyrGlnSerTyrGluGluLeuGlyArgLeu
                                                  6244
                                                                                720
                                                                                                                  6184
                                                                                                                                                700
                                                                                                                                                                                 6124
                                                                                                                                                                                                               680
                                                                                                                                                                                                                                                  6064
                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                 6004
                                                                                                                                                                                                                                                                                                                                                 640
                                                                                                                                                                                                                                                                                                                                                                                 5944
                                                                                                                                                                                                                                                                                                                                                                                                                620
                                                                                                                                                                                                                                                                                                                                                                                                                                                  5884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 7, Application US/10132382

Publication No. US20030045699A1

GENERAL INFORMATION:

APPLICANT: WELSS, BERTRAM

TITLE OF INVENTION: MEMBRANE RECEPTORS FOR S

FILE REFERENCE: SCH-1811

CURRENT APPLICATION NUMBER: US/10/132,382

CURRENT FILING DATE: 2002-04-26

NUMBER OF SEQ ID NOS: 26

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 7

LENGTH: 7229

TYPE: DNA

GROANISM: Homo sapiens

US-10-132-382-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                      S
                                                          멂
                                                                                      S
                                                                                                                              뮍
                                                                                                                                                       S
                                                                                                                                                                                             g
                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                         뮹
                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                               뮍
                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                         ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
US-10-132-382-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-836-392-21 (1-728) x US-10-132-382-7 (1-7229)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
Pred. No.:
                                                                                                                                4818
                                                                                                                                                                                               4758
                                                                                                                                                                                                                                                                  4698
                                                                                                                                                                                                                                                                                                                                 4638
                                                                                                                                                                                                                                                                                                                                                                                                  4578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4398
 4938
                                                                 4878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4338 ATGCTGAGGCACCTGCGGGCCACCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGGAG
                                                                                              181
                                                                                                                                                               161
                                                                                                                                                                                                                               141
                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6245 GAGGCTTGCACTCGCAAGAGAAGG 6268
                               201
                                                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ш
 GAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACTAAGCCA
                     GluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLysPro
                                                                 HisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgProValLeuGlyGlnPro
                                                                                                                                                                                                                                                                SerAspTyrGlyIleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThr
                                                                                                                                                                                                                                                                                                                                                     LysSerAspAsnIleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGAACGCCAGAGATTCTTCCTTTATACCCCTGGGACACATGCTCACCCAAAAAATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluAsnAlaArgAspSerSerPheIleProLeuGlyHisMetLeuThrGlnLysIleAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AlaSerMetLeuHisAlaLeuGlnHisProCysIleValAlaLeuIleGlyIleSerIle
                                                                                                                                  TTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACTGGGCCAC
                                                                                                                                                     PheSerTyrGlyMetValLeuTyrGluLeuLeuSerGlyGlnArgProAlaLeuGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HisProLeuCysPheAlaLeuGluLeuAlaProLeuSerSerLeuAsnThrValLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MetLeuArgHisLeuArgAlaThrAspAlaMetLysAsnPheSerGluPheArgGlnGlu
                                                                                                                                                                                                 CCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGGAAGGTAGATATG
                                                                                                                                                                                                                      ProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysValAspMet
                                                                                                                                                                                                                                                                                                                                 AAGTCGGACAACATTCTGGTGTGGTCCCTTGACGTCAAGGAGCACATCAACATCAAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                  TACCAGATCGCCTCGGGCCTGGCCTACCTGCACAAGAAAAACATCATCTTCTGTGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                    TyrGlnIleAlaSerGlyLeuAlaTyrLeuHisLysLysAsnIleIlePheCysAspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACCCGCTCTGCTTCGCCCTGGAGCTCGCGCCCCCAGCAGCCTCAACACCGTGCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCAGCATGCTGCACGCGCTGCAGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3579.50
94.51%
94.51%
93.66%
15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STEROIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7229
688
0
1
1
39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STEROLS
```

8 8 8 8 8 8 8 8 8

Ś

4997

200 4937 220 4877

180

4817

160

4757

140

4697

120

4637

100

4577

90

4517

60 445

4397

20

유

맑

660

6140

640

6080

620

6020

6200

089

6320

6260

```
5781
                                                                                                                                                                                                                                                                                             5661
                                                                                                                                                                                                                                                                                                                                                                                                                                 5541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5058
                                                                                                                                                                                                                                                                                                                                                               5601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                   561
                                                                                                                                                                                       521
                                                                                                                                                                                                                                                          501
                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlnAsnProTyrProValLysAlaMetGluValValAsnSerGlySerGluValTrpTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TyrThrValValPheTrpAspGlyLysGluGluSerArgAsnTyrThrValValAsnThr
                                                                                                                                                                            ProGluGlyAspSerIleAlaAspValSerIleMetTyrSerGluGluLeuGlyThrGln
                                                                                                                                                                                                                                                                                                                                                               GAGGAGGTCGTCTGGTGCCTGGATGACAAGGCCAACTCCTTGGTGATGTACCACTCCACC
                                                                                                                                                                                                                                                                                                                                                                                       GluGluValValTrpCysLeuAspAspLysAlaAsnSerLeuValMetTyrHisSerThr 480
                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCCCTACATGGCCCCTCCATGGTTACGTCAGTCGTGTGCAGCTCTGAGGGCAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluProTyrMetAlaProSerMetValThrSerValValCysSerSerGluGlyArgGly 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCAATGGGCCGGGCCTCCTTGTCATCGACTGTGCCTCCCTGGAGATCTGCAGGCGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerAsnGlyProGlyLeuLeuValIleAspCysAlaSerLeuGluIleCysArgArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACCTGTGCTCACACACAGCCAACAGGTCCAAGTTCAGCATCGCGGATGAAGACGCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TyrLeuCysSerHisThrAlaAsnArgSerLysPheSerIleAlaAspGluAspAlaArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCGATGGGCTTGTGTGTTTTCCCGTGGTGCGGGGCACCCCAAAGGACAGCTGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaAspGlyLeuValAlaValPheProValValArgGlyThrProLysAspSerCysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ThrCysPheLeuAlaValProValIleLysLysAsnSerTyrLeuValLeuAlaGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuLysGlyMetCysProLeuAsnThrProGlnGlnAlaLeuAspThrProAlaValVal 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCAGGTCCAGAGATCCCTGTGGACAGCCACCGAG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuGlnValGlnArgSerLeuTrpThrAlaThrGluAspGlnLysIleTyrIleTyrThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGAAGGGCCTCATGGAGGTGCAGAGGATGTGCTGCCCTGGGATGAAGGTGAGCTGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GluLysGlyLeuMetGluValGlnArgMetCysCysProGlyMetLysValSerCysGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCATGTATGAACTGTGCTGTGGGAAGCAGACAGCCTTCTTCTCATCCCAGGGCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePheSerSerGlnGlyGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGAAGCGACCGCTGGCCCTGTCGGTGAGCCAGATGAAGGACCCGACTTTTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluLysArgProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAlaThr
                                      ProProArgGlnAlaAlaArgSerProSerSerLeuProSerSerProAlaSerSerSer
                                                                                                            IleLeuIleHisGlnGluSerLeuThrAspTyrCysSerMetSerSerTyrSerSerSer
                                                                                                                                                        CCTGAGGGGACTCCATCGCGGACGTGAGCATCATGTACAGTGAGGAGCTGGGCACGCAG
                                                                                                                                                                                                                         ThrTyrGlnLeuCysAlaArgTyrPheCysGlyValProSerProLeuArgAspMetPhe
                                                                                                                                                                                                                                                          ProValArgProLeuAspThrGluProProAlaAlaSerHisThrAlaAsnProLysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----AATTCCTACCTGGTCTTAGCGGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              280
                                                                                                                                                                                                                                                                                                                                                                                                                                   5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5177
                                                                                                                                                                                                                         5780
                                                                                                                                                                                                                                                                                             5720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5057
                    5960
                                                   580
                                                                                      5900
                                                                                                                     560
                                                                                                                                                        5840
                                                                                                                                                                                       540
                                                                                                                                                                                                                                                          520
                                                                                                                                                                                                                                                                                                                            500
                                                                                                                                                                                                                                                                                                                                                               5660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application US/10132382
Publication NO. US20030045699A1
GENERAL INFORMATION:
APPLICANT: WEISS, BERTRAM
TITLE OF INVENTION: MEMBRANE RECEPTORS FOR STEROIDS AND STEROLS
FILE REFERENCE: SCH-181;
CURRENT APPLICATION NUMBER: US/10/132,382
CURRENT FILING DATE: 2002-04-26
NUMBER OF SEQ ID NOS: 26
SOCTWARE: PatentIn Ver. 2.1
SEQ ID NO 3
LENGTH: 7307
TYPE: DNA
ORGANISM: Homo sapiens
US-10-132-382-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                          5
                                                                                                                            Ś
                                                                                                                                                                      片
                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
S
                               В
                                                                                                    片
                                                                                                                                                                                                                                        US-09-836-392-21 (1-728) x US-10-132-382-3 (1-7307)
                                                                                                                                                                                                                                                                                                                                               Score:
                                                                                                                                                                                                                                                                                                                                                               Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-132-382-3
                                                                                                      4476
                                                                                                                                                                          4416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     581
                                                                   41
                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluAlaCysThrArgLysArgArg
                                                                                                                        AlaSerMetLeuHisAlaLeuGlnHisProCysIleValAlaLeuIleGlyIleSerIle
                                                                                                                                                                          ATGCTGAGGCACCTGCGGGCCACCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGGAG
                                                                                                                                                                                              MetLeuArgHisLeuArgAlaThrAspAlaMetLysAsnPheSerGluPheArgGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGGCTTGCACTCGCAAGAGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyTrpGlyAlaArgGluPheAspIlePheTyrGlnSerTyrGluGluLeuGlyArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACACTGTTGTGTGCACCTTTGAAAATGAAAACACAGAGTGGTGCCTGGCCGTCTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AspThrValValCysThrPheGluAsnGluAsnThrGluTrpCysLeuAlaValTrpArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTAAAAGCCCGAGAGCTGACTCCGCATGGGGTGCTGGTGGATGCTGCCGTGGTGGCAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuLysAlaArgGluLeuThrProHisGlyValLeuValAspAlaAlaValValAlaLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValileValileGlyLeuGluLysAspSerGluAlaGlnArgGlyArgValileAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGCCGTGAAGATCCTCGCCGTCAGAGACCTCATTTGGGTCCCCAGGCGCGGTGGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlnAlaValLysIleLeuAlaValArgAspLeuIleTrpValProArgArgGlyGlyAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SerAspArgSerGluHisAspLeuThrProMetAspGlyGluThrPheSerGlnHisLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerValProPheSerThrAspCysGluAspSerAspMetLeuHisThrProGlyAlaAla
 GluAsnAlaArgAspSerSerPheIleProLeuGlyHisMetLeuThrGlnLysIleAla
                                                                 HisProLeuCysPheAlaLeuGluLeuAlaProLeuSerSerLeuAsnThrValLeuSer
                                                                                                        GCCAGCATGCTGCACGCGCTGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTGTGCCTTTCTCCACCGACTGCGAGGACTCAGACATGCTACATACGCCCGGTGCTGCC
                                                                                                                                                                                                                                                                         3579.50
94.51%
94.51%
93.66%
                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  728
                                                                                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                             7307
688
0
1
1
39
```

8

8 8 8 8 8 8 8 8 8 Ś

유양

밁

40 40 40 40 40 40 40 40

유

4535

40

60

4475

당 상 당

성 유

5379 GCCATGGGCTTGTGGCTGTTTTCCCGTGGTGCGGGGCACCCCAAAGGACAGCTGCTCC 5438 381 TyrLeuCysSerHisThrAlaAsnArgSerLysPheSerTleAlaAspGllAspAflaArg 400	5316 CTCCAGGTCCAGACATCCCTGTGGACACCCAGCGAG	261 TyrThrValValPheTrpAspGlyLysGluGluSerArgAsnTyrThrValValAsnThr 280	201 GluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLysPro 220	141 ProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLyeValAspMet 160	4596 GAGAACGCCAGAGATTCTTCCTTTATACCCCTGCGACACATGCTCACCCAAAAAATAGCC 4655 81 TYTGINILeAlaSerGlyLeuAlaTyrLeuHisLysLysAsmileIlePheCysAspLeu 100
	681 ASPThrValValCysThrPheGluAsnGluAsnThrGluTrpCysLeuAlaValTrpArg 7	Oy 621 GIDALAVALLYSIJELEDALAVALAVASPLEULIETTYVALPYOARGATGGLYGLYASP 640 [561 FOFFOATGUINA IANTANTSSETFOSSETSELEGIFICS AND ASSETSETS FOOD AND ASSETSETS FOOD ASSETS		GGGCCTCCTTGTCATCGACTGTGCCTCCCTGGAGATCTGCAGGCGGCT tAlaProSerMetValThrSerValValCysSerSerGluGlyArgGl

유 성

유양

Ş

유양

망 Ś В Ş В δ 유 성

밁 Ş B S 밁 Ş В 8

JUN-ICHI

```
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: SEKI, NACHIKO
APPLICANT: OSBIKAWA, TSUTOMU
APPLICANT: OTSUKA, MOTOYUKI
APPLICANT: OTSUKA, MOTOYUKI
APPLICANT: MASUHO, YASUHIKO
TITLE OF INVENTION: NOVEL FULL-LENGTH CDNA
FILE REFERENCE: 084335/0160
CURRENT APPLICATION NUMBER: US/10/094,749
CURRENT FILING DATE: 2002-03-12
FRIOR APPLICATION NUMBER: 60/350,435
PRIOR APPLICATION NUMBER: 40/350,435
PRIOR APPLICATION NUMBER: JP 2001-328381
PRIOR APPLICATION NUMBER: JP 2001-328381
PRIOR APPLICATION NUMBER: JP 2001-328381
PRIOR FILING DATE: 2001-09-14
NUMBER OF SEQ ID NOS: 3381
SOFTWARE: PATENTIA PRIOR SEGO ID NOS: 3381
SOFTWARE: PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATENTIA PATEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                 Bb
                                                                                                                                                                    8
                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                     멍
                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-836-392-21 (1-728) x US-10-094-749-50 (1-3112)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local S
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Pred. No.
                 S
                                                          及
                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              No . :
                                                                                                                                                                                                                   302
482
                                 272
                                                                                                                                            362
                                                                                                                                                                             232
                                                                                                                                                                                                                                                      212
                                                                                                                                                                                                                                                                                         242
                                                                                                                                                                                                                                                                                                                              192
                                                                                                                                                                                                                                                                                                                                                                   182
                                                                                                                                                                                                                                                                                                                                                                                                    172
                                                                                                                                                                                                                                                                                                                                                                                                                                          122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      112 VallysGluHisIleAsnIleLysLeuSerAspTyrGlyIleSerArgGlnSerPheHis
                                                                      422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HIO, YURI
OTSUKA, KAORU
NAGAI, KEIICHI
IRIE, RYOTARO
TAMECHIKA, ICHI
                                                                                                                                                                                                                                                                                                                    GlyIleArgProValLeuGlyGlnProGluGluValGlnPheArgArgLeuGlnAlaLeu
                                                                                                                                                                                                                                                                                                                                                                                               SerGlyGlnArgProAlaLeuGlyHisHisGlnLeuGlnIleAlaLysLysLeuSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IleValTyrAspGluLysValAspMetPheSerTyrGlyMetValLeuTyrGluLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GluGlyAlaLeuGlyValGluGlyThrProGlyTyrGlnAlaProGluIleArgProArg
                       SerArgAsnTyrThrValValAsnThrGluLysGlyLeuMetGluValGlnArgMetCys
                                                                                       AlaPhePheSerSerGlnGlyGlnGluTyrThrValValPheTrpAspGlyLysgluGlu
                                                                                                                                                                    GlnMetLygAspProThrPheAlaThrPheMetTyrGluLeuCysCygGlyLysGlnThr
                                                                                                                                                                                                                   ATGATGGAGTGCTGGGACACTAAGCCAGAGAAGCGACCGCTGGCCCTGTCGGTGGTGAGC
                                                                                                                                                                                                                                          MetMetGluCysTrpAspThrLysProGluLysArgProLeuAlaLeuSerValValSer
                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTGTATATGATGAGAAGGTAGATATGTTCTCCTATGGAATGGTGCTCTACGAGTTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCAAGGAGCACATCAACATCAAGCTATCTGACTACGGGATTTCGAGGCAGTCATTCCAT
                                                                                                                                            CAGATGAAGGACCCGACTTTTGCCACCTTCATGTATGAACTGTGCTGTGGGAAGCAGACA
                                                                                                                                                                                                                                                                                                                                                                   TCAGGACAGCGCCCTGCACTGGGCCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ISONO, L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YAMAMOTO, JUI
ISONO, YUUKO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
3225.00
99.84%
99.84%
84.38%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3CACTCCTGGCTACCAGGCCCCAGAGATCAGGCCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3112
616
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       151
                                   291
                                                                                                           271
                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                        231
                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                211
                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                      191
                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13
                                                                                                                                            421
                                                                                                                                                                               251
541
                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δõ
                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                       δ
                                                                                                                                                            멍
                                                                                                                                                                                               Š
                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                         5
                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1142
                                                                                                                                                                  1442
                                                                                                                                                                                                                                        1382
                                                                                                                                                                                                                                                                                                                1322
                                                                                                                                                                                                                                                                                                                                                                                     1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1022
                                                                                           1502
                     1562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         602
                                                                                                                             612
                                                                                                                                                                                                   592
                                                                                                                                                                                                                                                                           572
                                                                                                                                                                                                                                                                                                                                                    552
                                                                                                                                                                                                                                                                                                                                                                                                                          532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  292
                                                      632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlnAlaLeuAspThrProAlaValValThrCysPheLeuAlaValProValIleLysLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGACCAGAAAATCTACATCTACACCCTCAAGGGCATGTGCCCCCTTAAACACACCCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCCTGGGATGAAGGTGAGCTGCCAGCTCCAGAGATCCCTGTGGACAGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CysProGlyMetLysValSerCysGlnLeuGlnValGlnArgSerLeuTrpThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATTCCTACCTGGTCTTAGCGGGCCTCGCCGATGGGCTTGTGGCTGTGTTTCCCCGTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AsnSerTyrLeuValLeuAlaGlyLeuAlaAspGlyLeuValAlaValPheProValVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluAspGlnLysIleTyrIleTyrThrLeuLysGlyMetCysProLeuAsnThrProGln
                                                                                                                                                                                                                                                                                                                                              CysSerMetSerSerTyrSerSerSerProProArgGlnAlaAlaArgSerProSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                MetTyrSerGluGluLeuGlyThrGlnIleLeuIleHisGlnGluSerLeuThrAspTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaSerHisThrAlaAsnProLysValProGluGlyAspSerIleAlaAspValSerIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValProSerProLeuArgAspMetPheProValArgProLeuAspThrGluProProAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AsnSerLeuValMetTyrHisSerThrThrTyrGlnLeuCysAlaArgTyrPheCysGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCGTGTGCAGCTCTGAGGGCAGAGGGGAGGAGGTCGTCTGGTGCCTGGATGACAAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValValCysSerSerGluGlyArgGlyGluGluValValTrpCysLeuAspAspLysAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCTCCCTGGAGATCTGCAGGCGGCTGGAGCCCTTACATGGCCCCCTCCATGGTTACGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaSerLeuGluIleCysArgArgLeuGluProTyrMetAlaProSerMetValThrSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValAsnSerGlySerGluValTrpTyrSerAsnGlyProGlyLeuLeuValIleAspCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PheSerIleAlaAspGluAspAlaArgGlnAsnProTyrProValLysAlaMetGluVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGGGCACCCCAAAGGACAGCTGCTCCTACCTGTGCTCACACAGCCAAACAGGTCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgG1yThrProLysAspSerCysSerTyrLeuCysSerHisThrAlaAsnArgSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGCCTTGGATACTCCAGCTGTCGTCACCTGCTTCTTGGCCGTGCCTGTTATTAAAAAAG
                     ATTTGGGTCCCCAGGCGCGT-GGAGATGTTATCGTCATTGGCCTGGAGAAGGATTCTGAA
                                         | IleTrpValDroArgArgGlyGlyAspValIleValIleGlyLeuGluLysAspSerGlu
                                                                                                                 AspGlyGluThrPheSerGlnHisLeuGlnAlaValLysIleLeuAlaValArgAspLeu
                                                                                                                                                                  GACATGCTACATACGCCCGGTGCTGCCTCCGACAGGTCTGAGCATGACCTGACCCCCATG
                                                                                                                                                                                           AspMetLeuHisThrProGlyAlaAlaSerAspArgSerGluHisAspLeuThrProMet
                                                                                                                                                                                                                                        CTCCCCAGCTCCCAGCAAGTTCTTCCAGTGTGCCTTTCTCCACCGACTGCGAGGACTCA
                                                                                                                                                                                                                                                              TECTCCATETCCTCCTACTCCTCATCCCCACCCCCAGGCTGCCAGGTCCCCCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                       GCCAGCCACACGGCCAACCCCAAAGGTGCCTGAGGGGGACTCCATCGCGGACGTGAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCCCCAGCCCCTCAGGGACATGTTTCCCCGTGCGGCCCTTGGACACGGAACCCCCGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACTCCTTGGTGATGTACCACTCCACCACCTACCAGCTGTGTGCCCCGGTACTTCTGCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCAACAGCGGCTCTGAGGTCTGGTACAGCAATGGGCCGGGCCTCCTTGTCATCGACTGT
                                                                                               CAGAGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           511
                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                                                                  1381
                                                                                                                                                                                                                                                                                                                                                                                           1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                      571
                                                                                                                                                                                                                                                                                                                                                                                                                              551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    311
                                                                                               1561
                                                                                                                                                                                                       611
                                                                                                                                                                                                                                                                                 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                          651
                                                                                                                                 631
                                                                                                                                                                      1501
```

B

S 밁 Ş B δ

```
CURRENT APPLICATION NUMBER: US/10/121,925
CURRENT FILING DATE: 2002-04-12
PRIOR APPLICATION NUMBER: US/09/948,802
PRIOR FILING DATE: 2001-09-07
PRIOR PELICATION NUMBER: 09/387,212
PRIOR ETLING DATE: 1999-08-31
NUMBER OF SEQ ID NOS: 18
SOFTMARE: Patentin Ver. 2.0
SEQ ID NO 10
SEQ ID NO 10
LENGTH: 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
US-10-121-925-10
                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-836-392-21 (1-728) x US-10-121-925-10 (1-526)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-121-925-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 10, Application US/10121925
Publication No. US20030104505A1
GENERAL INFORMATION:
APPLICANT: ROBISON, KEITH E.
TITLE OF INVENTION: PUCCLEIC ACID MOLECULES ENCODING HUMAN KINASE AND
TITLE OF INVENTION: PUOSPHATASE HOMOLOGUES AND USES THEREFOR
FILE REFERENCE: MNI-090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: All occurences of n indicate any nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  652
                                                                                               179
                                                                                                                                      192
                                                                                                                                                                          159
                                                                                                                                                                                                               132
                                                                                                                                                                                                                                                      139
                                                                                                                                                                                                                                                                                                                               119
                        199
                                                             252
                                                                                                                                                                                                                                                                                                                                                                      12
                                                                                                                                                                                                                                                                                            72
                                                                                                                                                                                                                                                                                                                                                                                                  99 AspLeuLysSerAspAsnIleLeuValTrpSerLeuAspValLysGluHisIleAsnIle
                                                                                                                                                                                                                                              GlyThrProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysVal
                                                                                                                                                                                                                                                                                                                       LysLeuSerAspTyrGlyIleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlnSerTyrGluGluLeuGlyArgLeuGluAlaCysThrArgLysArgArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AlaGlnArgGlyArgValIleAlaValLeuLysAlaArgGluLeuThrProHisGlyVal
GlnProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThr
                                                                                     GlyHisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgProValLeuGly 198
                                                                                                                                                                                                                                                                                          AAGCTATCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGGCGCCCTAGGCGTGGAG
                                                                                                                                                                                                                                                                                                                                                                    GACCTGAAGTCGGACAACATTCTGGTGTGGTCCCTTGACGTCAAGGAGCACATCAACATC 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGTCCTACGAGGAGCTGGGCCGGCTGGAGGCTTGCACTCGCAAGAGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACAGAGTGGTGCCTGGCCGTCTGGAGGGGCTGGGGGCCCCAGGGAGTTCGACATTTTCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrGluTrpCysLeuAlaValTrpArgGlyTrpGlyAlaArgGluPheAspIlePheTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuValAspAlaAlaValValAiaLysAspThrValValCysThrPheGluAsnGluAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCCAGCGGGGCCGAGTCATTGCCGTCTTAAAAGCCCCGAGAGCTGACTCCGCATGGGGTG
                                                             GOCCACCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCGGTTCTGGGG
                                                                                                                                      GATATGTTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACTG
                                                                                                                                                                        AspMetPheSerTyrGlyMetValLeuTyrGluLeuLeuSerGlyGlnArgProAlaLeu 178
                                                                                                                                                                                                               GGCACTCCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGAAGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.37e~85
.856.00
.97.69%
.97.69%
.22.40%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              671
                                                             311
                                                                                                                                                                                                                                                    158
                                                                                                                                                                                                                                                                                        131
                                                                                                                                                                                                                                                                                                                             138
                                                                                                                                                                                                                                                                                                                                                                                                        118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     691
                                                                                                                                                                                                               191
                      218
                                                                                                                                      251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          끊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
    Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR
```

Ś g Ś 밁 Ş 片

```
RESULT 8
US-10-115-482-47
US-10-115-482-47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 60/281,086
PRIOR FILING DATE: 2001-04-03
PRIOR PRIOR PRILING DATE: 2001-04-03
PRIOR PILING DATE: 2001-04-03
PRIOR PILING DATE: 2001-04-05
PRIOR PILING DATE: 2001-04-05
PRIOR PILING DATE: 2001-04-05
PRIOR PPLICATION NUMBER: 60/281,906
PRIOR APPLICATION NUMBER: 60/281,906
PRIOR PILING DATE: 2001-04-05
PRIOR PILING DATE: 2001-04-05
PRIOR PILING DATE: 2001-04-10
PRIOR PILING DATE: 2001-04-10
PRIOR APPLICATION NUMBER: 60/283,512
PRIOR APPLICATION NUMBER: 60/285,325
PRIOR APPLICATION NUMBER: 60/285,325
PRIOR PILING DATE: 2001-04-12
PRIOR PILING DATE: 2001-04-12
PRIOR PILING DATE: 2001-04-12
PRIOR PILING DATE: 2001-04-12
PRIOR PILING DATE: 2001-04-23
PRIOR PILING DATE: 2001-04-23
PRIOR PILING DATE: 2001-04-23
PRIOR PILING DATE: 2001-04-23
PRIOR PILING DATE: 2001-04-23
PRIOR PILING DATE: 2001-04-23
                                                                                                                                                                                             NUMBER OF S
SEQ ID NO 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 47, Application US/10115482 Publication No. US20030212257A1
                          LENGTH: 3052
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: CDS
LOCATION: (108)..(2853)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Spytek, et al.
TITLE OF INVENTION: NOVEL HUMAN PROTEINS, POLYNUCLEOTIDES ENCODING
TITLE OF INVENTION: AND METHODS
TITLE OF INVENTION: OF USING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: 21404-322D
CURRENT APPLICATION NUMBER: US/10/115,482
CURRENT FILING DATE: 2002-04-05
                                                                                                                                                                                                                                                                                                                                                     AFFLING DATE: 2001-00 - CAPPLICATION NUMBER: 60/
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/282,020 FILING DATE: 2001-04-06 APPLICATION NUMBER: 60/291,725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 2001-04-27
APPLICATION NUMBER: 60/288,257
FILING DATE: 2001-05-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/286,068 FILING DATE: 2001-04-24
                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/299,128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/286,292
FILING DATE: 2001-04-25
                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/296,965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/287,213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             312 CAGCCGGAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACT 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               258
                                                                                                                                                                                                                        SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   lyGlnGluTyrThrVal-ValPheTrpAspGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LysProGluLysArgProLeuAlaLeuSerValVal-SerGlnMetLysAspProThrPh 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCAGGAGTACACTGTGGGTGTTTTGGGATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          eAlaThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePhe-SerSerGlnG 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCCACCTTCATGTATGAACTGTGCTGTGGGAAGCAGACAGCCTTCTTCATTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCCAGAGAAGCGACCACTGGCCCTGTCGGTGGTGAAGCCAGATGAAGGACCCGACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001-05-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60/291,134
                                                                                                                                                                                                                                                                                                                                                                                              60/294,771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  431
```

```
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-836-392-21 (1-728) x US-10-115-482-47 (1-3052)
                                                                                                  8
                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1179
                                                                                                                                                                                                                         1692
                                                                                                                                                                                                                                                                                                  1632
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         104
                                                                                                                                                                                                                                                                                                                                      216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 999 GCTGTGAAGATTTTTAATAAACATACATCACTCAGGCTGTTAAGACAAGAGCTTGTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24 LeuHisAlaLeuGlnHisProCysIleValAlaLeuIleGlyIleSerIleHisProLeu 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITGGTTTACTACTCTATGACATTITGACAACTGGAGGTAGAATAGTAGAGGGTTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTGCACCTGAAGTTGCCAGAGGAAATGTCATTTATAACCAACAGGCTGATGTTTATTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlnAlaProGluIle---ArgProArgIleValTyrAspGluLysValAspMetPheSer 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATGTGCTGCTTTTCACACTGTATCCCAATGCTGCCATCATTGCAAAGATTGCTGACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AlaMetLysAsnPheSerGlu-------PheArgGlnGluAlaSerMet 23
                                                                                                                                                                                                                           ATTTTGAATTCAGCT-----GAATTAGTCTGTCT-GACGAGACGCATTTTATTACC
                                                                                                                                                                                                                                                                                                                                                                           TATGGTTGTGCCCCA------TGGCCTATGGTTGAGAAATTAATTAAACAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                           ValLeuGlyGlnProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrGlyMetValLeuTyrGluLeuLeu---SerGlyGlnArgProAlaLeuGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCATTGCTCAGTACTGCTGTAGAATGGGGATAAAAACATCAGAGGGCACACCAGGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyIleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyr 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTGATGGTTTGAGATACCTCCACTCAGCCATGATTATATACCGAGACCTGAAACCCCCAC 128:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCAGC-----CTCACTAGAACCCTACAGCACAGGATTGCACTCCACGTA 1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgAspSerSerPheIleProLeuGlyHisMetLeuThrGlnLysIleAlaTyrGlnIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGTTGGTGATGGAGTTAGCCTCCAAGGGTTCCTTGGATCGCCTGCTTCAGCAGGACAAA 1178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CysPheAlaLeuGluLeuAlaProLeuSerSerLeuAsnThrValLeuSerGluAsnAla 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTTGCCACCTCCACCACCCCAGTTTGATATCTTTGCTGGCAGCTGGGATTCGTCCCCGG 1118
AGGATACACTTCTGAGGAAGTTGCTGATAGTAGAATATTGTGCTTAGCCTTG------
                                   uLysGlyLeuMetGluVal-----GlnArgMetCysCysProGlyMetLysValSe
                                                                         TTGGCTGGGCTGTGGGCACACCGACAGAGGACAGCTCTCATTTCTTGACTTAAATACTGA
                                                                                                        ThrValValPheTrpAspGlyLysGluGluSerArg-AsnTyrThrValValAsnThrGl
                                                                                                                                                TAAAAACGTAATTGTTGAATGCATGGTTGCTACACATCACAACAGCAGGAATGCAAGCAT
                                                                                                                                                                                                                                                           ProThrPheAlaThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhe-----
                                                                                                                                                                                                                                                                                                  TTGAAAGAAAATĆĊTCAAGAAAĠĠĆĊTACTTCTGCCCAGGTATTCTCTCAĠGTCTTTGAC
                                                                                                                                                                                                                                                                                                                                      TrpAspThrLysProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTCCAAATGAGTTTGATGAATTAGAAATACAAGGAAAATTACCTGATCCAGTTAAAGAA 1583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ------HisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgPro 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AsnIleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeuSerAspTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AlaSerGlyLeuAlaTyrLeuHisLysLysAsnIleIlePheCysAspLeuLysSerAsp
                                                                                                                                                                                 ----PheserserGlnGlyGlnGlu-----Tyr 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4.91e-27
341.50
48.35%
28.10%
8.94%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3052
111
80
150
14
                                                                                                                                                                                                                                                                                                    1691
                                                                                                                                                                                                                                                                                                                                                                                                                 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1058
                                                                                                                                                                                                                                                                                                                                                                           1631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           83
                                                                           1861
                                                                                                                                                    1801
                                                                                                                                                                                                                           1741
   1913
                                       298
                                                                                                                281
                                                                                                                                                                                                                                                                253
                                                                                                                                                                                                                                                                                                                                        235
```

```
APPLICATION NUMBER: 60/281,966
PRIOR APPLICATION NUMBER: 60/281,966
PRIOR APPLICATION NUMBER: US/10/115,482
CURRENT FILING DATE: 2002-04-05
PRIOR APPLICATION NUMBER: US/10/115,482
CURRENT FILING DATE: 2002-04-05
PRIOR APPLICATION NUMBER: 60/281,36
PRIOR PILING DATE: 2001-04-03
PRIOR APPLICATION NUMBER: 60/281,36
PRIOR FILING DATE: 2001-04-05
PRIOR APPLICATION NUMBER: 60/281,966
PRIOR APPLICATION NUMBER: 60/281,906
PRIOR APPLICATION NUMBER: 60/281,906
PRIOR PILING DATE: 2001-04-05
PRIOR PILING DATE: 2001-04-05
PRIOR PILING DATE: 2001-04-05
PRIOR PILING DATE: 2001-04-05
PRIOR PILING DATE: 2001-04-10
PRIOR APPLICATION NUMBER: 60/283,512
PRIOR APPLICATION NUMBER: 60/285,325
PRIOR APPLICATION NUMBER: 60/285,325
PRIOR PILING DATE: 2001-04-12
PRIOR APPLICATION NUMBER: 60/285,325
PRIOR PILING DATE: 2001-04-12
PRIOR APPLICATION NUMBER: 60/285,325
PRIOR PILING DATE: 2001-04-12
PRIOR APPLICATION NUMBER: 60/285,325
PRIOR PILING DATE: 2001-04-12
PRIOR APPLICATION NUMBER: 60/285,890
PRIOR PILING DATE: 2001-04-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 9
US-10-115-482-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                               PRIOR APPLICATION NUMBER: 60/291,725
PRIOR RILING DATE: 2001-05-17
PRIOR APPLICATION NUMBER: 60/294,771
PRIOR FILING DATE: 2001-05-31
PRIOR APPLICATION NUMBER: 60/296,965
PRIOR FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: 60/299,128
PRIOR FILING DATE: 2001-06-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 49, Application US/10115482 publication No. US20030212257A1 GENERAL INFORMATION:
NUMBER OF SEQ ID NOS: 149
SEQ ID NO 49
LENGTH: 3040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                            OR APPLICATION NUMBER: 60/285,325
OR FILING DATE: 2001-04-19
OR APPLICATION NUMBER: 60/285,890
OR APPLICATION NUMBER: 60/286,068
OR FILING DATE: 2001-04-24
OR APPLICATION NUMBER: 60/286,068
OR FILING DATE: 2001-04-24
OR APPLICATION NUMBER: 60/286,292
OR FILING DATE: 2001-04-25
OR APPLICATION NUMBER: 60/287,213
OR APPLICATION NUMBER: 60/287,213
OR APPLICATION NUMBER: 60/288,257
OR FILING DATE: 2001-04-05
OR APPLICATION NUMBER: 60/288,257
OR FILING DATE: 2001-05-02
OR FILING DATE: 2001-05-02
OR FILING DATE: 2001-05-02
OR FILING DATE: 2001-05-02
                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/291,134 FILING DATE: 2001-05-15 APPLICATION NUMBER: 60/282,020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1914 -GIGCATCTTCCTGTTGAAAAGGAAAGCTGGATTGTGTCTGGGACACAGTCTGGTACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2084 TTTTCTTTTGGTTGGAACCGCTGATGGCAAGTTAGCAATTTTT 2126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  316 eTyrTleTyrThrLeuLysGlyMetCysProLeuAsnThrProGlnGlnAlaLeuAspTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   298 rCysGlnLeuGlnValGlnArgSerLeuTrp----ThrAlaThrGluAspGlnLysIl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rProAlaValThrCysPheLeuAlaValProValIleLys-----LysAsnSerTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTGGTCATCAATACCGAAGATGGGAAAAAAGAGACATACCCTAGAAAAGATGACTGATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rLeuValleuAlaGlyLeuAlaAspGlyLeuValAlaValPhe
                                                                                                                                                                                                                                                                                                                       2001-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POLYNUCLEOTIDES ENCODING THEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              336
```

NAME/KEY: CDS LOCATION: (108)..(2841) -10-115-482-49

ORGANISM: Homo FEATURE:

варіепя

Qy 196 ValLeuGlyGlnProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCys 215 Db 1584 TATGGTTGTGCCCCATGGCCTATGGTTGAAAAATTAAATAAATAAACAGTGT 1631 Qy 216 TrpAspThrLysProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAsp 235 Db 1632 TTGAAAGAAATCCTCAAGAAAGGCCTACTTCTGCCCCAGGTCTTTGACATTTGAAATCA 1691 Qy 236 ProThrPheAlaThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhe 253 Db 1692 GCT	44 CyspheAlaLeuGlleuAlaProLeuSerSerLeuAsnThrValLeuSerGlAssnAla 63 119 ATGTTGGTGATGAGTTAGCCTCCAAGGGTTCCTTGGATCGCCTGCTTCAGGAGCACAA 117 64 ArgAspSerSerPheIleProLeuGlyHisMetLeuThrGlnLysIleAlaTyrGlnIle 83 1179 GCCAGCCTCACTAGAACCTACAGAGATTGCACTGCAC	Alignment Scores: Pred. No.: Score: Score: Score: Percent Similarity: 47.34% Best Local Similarity: 9.65% Conservative: 79 Hest Local Similarity: 13 US-09-836-392-21 (1-728) x US-10-115-482-49 (1-3040) Qy 10 AlaMetLysAsnPheSerGlu
Qy 10 AlaMetLysAsnPheSerGlu	RESULT 10 Sequence 3, Application US/10335687A Sequence 3, Application No. US20030166222A1 GENERAL INFORMATION:	Db 1850 AGGATACACTTCTGAGGAAGTTGCTGATAGTAGAATATTTGTGCTTAGCCTTG 1901 298 rCysGlnLeuGlnValGlnArgSerLeuTrpThrAlaThxGluAspGlnLysil 316 298 rCysGlnLeuGlnValGlnArgSerLeuTrpThrAlaThxGluAspGlnLysil 316 298 rCysGlnLeuGlnValGlnArgSerLeuTrp

Š

Ş 멂 Š 밁 Ś g ő 片

망 Ş 밁 Ş D,

δ

```
Sequence 6, Application US/10335687A
Publication No. US20030166222A1
GENERAL INFORMATION:
APPLICANT: Meyers, Rachel E.
APPLICANT: Millennium pharmaceuticals, In
TITLE OF INVENTION: 9267, Human Kinase Fa;
TITLE OF INVENTION: Uses Therefor
FILE REFERENCE: MP102-001P1RNM
FILE REFERENCE: MP102-001P1RNM
                                                                                                                                                                                                               RESULT 11
US-10-335-687A-6
CURRENT APPLICATION NUMBER: US/10/335,687A CURRENT FILING DATE: 2003-01-02 PRIOR APPLICATION NUMBER: 60/345,773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4332
                                                                                                                                                                                                                                                                            4674 TTTTCTTTTGGTTGGAACCGCTGATGGCAAGTTAGCAATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATGGTTGTGCCCCA------TGGCCTATGGTTGAGAAATTAATTAAACAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITGGTTTACTACTCTATGACATTTTGACAACTGGAGGTAGAATAGTAGAGGGTTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTGCACCTGAAGTTGCCAGAGGAAATGTCATTTATAACCAACAGGCTGATGTTTATTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlnAlaProGluIle---ArgProArgIleValTyrAspGluLysValAspMetPheSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAAAAACGTAATTGTTGAATGCATGGTTGCTACACATCACAACAGCAGGAATGCAAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGAAAGAAATCCTCAAGAAAGGCCTACTTCTGCCCAGGTCTTTGACATTTTGAATTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValLeuGlyGlnProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCys 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyIleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyr 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATGTGCTGCTTTTCACACTGTATCCCAATGCTGCCATCATTGCAAAGATTGCTGACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AsnIleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeuSerAspTyr
                                                                                                                                                                                                                                                                                                               rLeuValLeuAlaGlyLeuAlaAspGlyLeuValAlaValPhe 368
                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGGTCATCAATACCGAAGATGGGAAAAAGAGACATACCCTAGAAAAGATGACTGATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        eTyrTleTyrThrLeuLysGlyMetCysProLeuAsnThrProGlnGlnAlaLeuAspTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -GTGCATCTTCCTGTTGAAAAGGAAAGCTGGATTGTGTCTGGGACACAGTCTGGTACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGATACACTTCTGAGGAAGTTGCTGATAGTAGAATATTGTGCTTAGCCTTG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               uLysGlyLeuMetGluVal------GlnArgMetCysCysProGlyMetLysValSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGGCTGGGCTGTGGGCACACCGACAGAGGACAGCTCTCATTTCTTGACTTAAATACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ThrValValPheTrpAspGlyLysGluGluSerArg-AsnTyrThrValValAsnThrGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProThrPheAlaThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhe-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TrpAspThrLysProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTCCAAATGAGTTTGATGAATTÄGAAATÄCAAGGAAAATTÄCCTGATCCAGTTAAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----HisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgPro 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrGlyMetValLeuTyrGluLeuLeu---SerGlyGlnArgProAlaLeuGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCATTGCTCAGTACTGCTGTAGAATGGGGATAAAAACATCAGAGGGCACACCAGGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rCysGlnLeuGlnValGlnArgSerLeuTrp-----ThrAlaThrGluAspGlnLysIl
                                                                                                                                                                                                                                                                                                                                                                                           rProAlaValValThrCysPheLeuAlaValProValIleLys-----LysAsnSerTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----gaattagtctgtct-gacgagacgcattttattacc
                                                                                                                                                                                                                                                                                                                                                         ------PheserserginglyGlnGlu-----Tyr 261
                                                                                                Family Members and
                                                                                                                                                                                                                                                                            4716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  123
                                                                                                                                                                                                                                                                                                                                                                                                                                       4622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맒
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-335-687A-6
                             Š
                                                                             밁
                                                                                                                 Š
                                                                                                                                                        밁
                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                 뮍
                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-836-392-21 (1-728) x US-10-335-687A-6 (1-5475)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 20
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 2002-01-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
LOCATION: (1)...(5475)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 5475
                                                                                                                                                                                                                                        4126
                                                                                                                                                                                                                                                                                                                      4066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3601
                                                                               4234
                                                                                                                                                             4186
                                                                                                                                                                                                                                                                                                                                                                                                 4006
                                                                                                                                                                                                                                                                                                                                                           163
                                                                                                                                                                                                                                                                                                                                                                                                                                       144
                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10 AlaMetLysAsnPheSerGlu--------PheArgGlnGluAlaSerMet 23
                                                                                                                                                                                                                                                                                                                                                                                                                                 GlnAlaProGluIle---ArgProArgIleValTyrAspGluLysValAspMetPheSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGTGCTGCTTTTCACACTGTATCCCAATGCTGCCATCATTGCAAAGATTGCTGACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTGTGAAGATTTTTAATAAACATACATCACTCAGGCTGTTAAGACAAGAGCTTGTGGTG
                                                                                                                                                                                                                                                                                                                    TTTGGTTTACTACTCTATGACATTTTGACAACTGGAGGTAGAATAGTAGAGGGTTTGAAG
                                                                                                                                                                                                                                                                                                                                                     TyrGlyMetValLeuTyrGluLeuLeu---SerGlyGlnArgProAlaLeuGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCATTGCTCAGTACTGCTGTAGAATGGGGATAAAAACATCAGAGGGCACACCAGGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyTleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyr 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AsnIleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeuSerAspTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTGATGGTTTGAGATACCTCCACTCAGCCATGATTATATACCGAGACCTGAAAACCCCAC 3885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AlaSerGlyLeuAlaTyrLeuHisLysLysAsnIleIlePheCysAspLeuLysSerAsp 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCAGC------CTCACTAGAACCCTACAGCACAGGATTGCACTCCACGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgAspSerSerPheIleProLeuGlyHisMetLeuThrGlnLysIleAlaTyrGlnIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGTTGGTGATGGAGTTAGCCTCCAAGGGTTCCTTGGATCGCCTGCTTCAGCAGGACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CysPheAlaLeuGluLeuAlaProLeuSerSerLeuAsnThrValLeuSerGluAsnAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTTGCCACCTCCACCACCCCAGTTTGATATCTTTGCTGGCAGCTGGGATTCGTCCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuHisAlaLeuGlnHisProCysIleValAlaLeuIleGlyIleSerIleHisProLeu 43
                                                                                                                                                                                              ValLeuGlyGlnProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCys
                                                                                                                                                                                                                                                                                                                                                                                                 CGTGCACCTGAAGTTGCCAGAGGAAATGTCATTTATAACCAACAGGCTGATGTTTATTCA
                                                                                                                                                             TATGGTTGTGCCCCA------TGGCCTATGGTTGAGAAATTAATTAAACAGTGT
                                     ProThrPheAlaThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhe-----
                                                                               TTGAAAGAAAATĆĆŤCAAGAAÁĠĠĆĊŤACTTCTGCCCAGĞŤĊTTTGACATTTTGAATTCA
                                                                                                                     TrpAspThrLysProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAsp
                                                                                                                                                                                                                                        TTTCCAAATGAGTTTGATGAATTAGAAATACAAGGAAAATTACCTGATCCAGTTAAAGAA
                                                                                                                                                                                                                                                                        -----HisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgPro 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.09e-25
330.50
47.34%
27.34%
8.65%
      -GAATTAGTCTGTCT-GACGAGACGCATTTTATTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108
79
150
150
                                                                                     4293
                                                                                                                                                                 4233
                                                                                                                                                                                                                                            4185
                                                                                                                                                                                                                                                                                                                          4125
                                                                                                                                                                                                                                                                                                                                                                                                     4065
                                                                                                                                                                                                                                                                                                                                                                                                                                         162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63
                                                                                                                                                                                                    215
                                                                                                                                                                                                                                                                                                                                                                179
                                              253
```

Ś В Ş 밁 Ş B Ş 밁

뭉 Ś 밁 8 밁 Ş B

44 CysPheAlaLeuGluLeuAlaProLeuSerSerLeuAsnThrValLeuSerGluAsnAla	24 LeuhisAlaLeuGlnHisProCysIleValAlaLeuIleGlyIleSerIleHisProLeu 4 	10 AlaMetLyBAsnPheSerGlu	Match: 8.65% Indels: Gaps: 13 S-392-21 (1-728) x US-10-335-687A-1 (1-5799)	2.29e-25 imilarity: 47.348 l Similarity: 27.348	; LOCATION: (29)(5485) US-10-335-687A-1 Alignment Scores:	X	; NUMBER OF SEQ ID NOS: 20 ; SOFTWARE: FastSEQ for Windows Version 4.0 ; SEQ ID NO 1 ; LENGTH: 5799	; CURRENT APPLICATION NUMBER: US/10/335,687A ; CURRENT FILING DATE: 2003-01-02 ; PRIOR APPLICATION NUMBER: 60/345,773 ; PRIOR FILING DATE: 2002-01-02		; Sequence 1, Application US/10335687A ; Publication No. US20030166222A1 ; GENERAL INFORMATION; ; APPLICANT: Meyers, Rachel E.	SULT 12 -10-335-687A-1	Qy 354 rLeuValLeuAlaGlyLeuAlaAspGlyLeuValAlaValPhe 368	Qy 336 rProAlaValValThrCysPheLeuAlaValProValIIeLysLysAsnSerTy 354	Qy 316 eTyrTleTyrThrLeuLysGlyMetCysProLeuAsnThrProGlnGlnAlaLeuAspTh 336 :::: :::::: ::::: ::::: ::::: ::::::	:::::: ::::::	TTGTGCTTAGCCT ThrAlaThrGluA	Qy 281 uLysGlyLeuMetGluValGlnArgMetCysCysProGlyMetLysValSe 298	262 ThrValValPheTrpAspGlyLysGluGluSerArg-AsnTyrThrValValAsnThrGl	Qy 254Tyr 261 ::::::: ::: Db 4332 TAAAAACGTAATTGTTGAATGCATGGTTGCTACACATCACAGCAGGAATGCAAGCAT 4391
RESULT 13 US-10-335-687A-4	Qy 354 rLeuValLeuAlaGlyLeuAlaAspGlyLeuValAlaValPhe 368	Qy 336 rProAlaValValThrCysPheLeuAlaValFroValIleLysLysAsnSerTy 354	Qy 316 eTyrIleTyrThrLeuLy8GlyMetCy8ProLeuAsnThrProGlnGlnAlaLeuAspTh 336;	Qy 298 rCysGlnLeuGlnValGlnArgSerLeuTrpThralaThrGluAspGlnLysIl 316	Qy 281 uLy8GlyLeuMetGluValGlnArgMetCy8Cy8ProGlyMetLy8ValSe 298	Qy 262 ThrValValPheTrpAspGlyLysGluGluSerArg-AsnTyrThrValValAsnThrGl 281	Qy 254Tyr 261 Comparison	Qy 236 ProThrPheAlaThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhe 253	Qy 216 TrpAspThrLysProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAsp 235	Qy 196 ValleuGlyGlnProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCys 215	Db 4154 TITCCAAATGAGTTTGATGAATTAGAAATACAAGGAAAATTACCTGATCCAGTTAAAGAA 4213	40	Db 4034 CGTGCACCTGAAGTTGCCAGAGGAAATGTCATTTATAACCAACAGGCTGATGTTTATTCA 4093 Qy 163 TyrGlyMetValLeuTyrGluLeuLeuSerGlyGlnArgProAlaLeuGly 179	Db 3974 GGCATTGCTCAGTACTGCTGTAGAATGGGGATAAAAACATCAGAGGGCACCAGCGGTTT 4033 Qy 144 GlnAlaProGluIleArgProArgIleValTyrAspGluLysValAspMetPheSer 162	124 GlyIleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyr	Qy 104 AsnIleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeuSerAspTyr 123	Qy B4 AlaSerGlyLeuAlaTyrLeuHisLysLysAsmIleIlePheCysAspLeuLysSerAsp 103	3809 GCCAGCCTCACTAGAACCCTACAGCACAGGATTGCACTCCACGTA	Db 3749 ATGTTGGTGATGGAGTTAGCCTCCAAGGGTTCCTTGGATCGCCTTCAGCAGGACAAA 3808 Qy 64 ArgAspSerSerPheIleProLeuGlyHisMetLeuThrGlnLysIleAlaTyrGlnIle 83

4261 215

253

281

261

4479

4590 316 4531

4650

```
GENERAL INFORMATION:
APPLICANT: Meyers, Rachel E.
APPLICANT: Millennium Pharmaceuticals, Inc.
APPLICANT: Millennium Pharmaceuticals, Inc.
TITLE OF INVENTION: 39267, Human Kinase Family Members and
TITLE OF INVENTION: Uses Therefor
FILE REFERENCE: MPIO2-001PLNM
CURRENT APPLICATION NUMBER: US/10/335,687A
CURRENT APPLICATION NUMBER: 00/345,773
PRIOR APPLICATION NUMBER: 60/345,773
PRIOR FILING DATE: 2003-01-02
NUMBER OF SEQ ID NOS: 20
                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                          밁
                                                                                                          Ś
                                                                                                                                          밁
                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                       멼
                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
    문
                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-836-392-21 (1-728) x US-10-335-687A-4 (1-5817)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-335-687A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOPTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
SENGTH: 5817
TYPE: DNA
CRGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4, Application US/10335687A Publication No. US20030166222A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: CDS
LOCATION: (29)...(5503)
                                                                                                                                                                                                                                                                                                       3914
                                                                                                                                                                                                                                                                                                                                                                                 3854
                                                                                                                                                                                                                                                                                                                                                                                                                                                          3809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3629
                                                                            4094
                                                                                                                                                    4034
                                                                                                                                                                                                                               3974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3689
                                                                                                                                                                                                                                                                 124
                                                                                                                163
                                                                                                                                                                                        144
                                                                                                                                                                                                                                                                                                                                           104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44
                                                                                                                                                                                                                                                                                                                                                                                                                    84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10
                                                                                                                                                  CGTGCACCTGAAGTTGCCAGAGGAAATGTCATTTATAACCAACAGGCTGATGTTTATTCA
                                                                                                                                                                                      GlnAlaProGluIle---ArgProArgIleValTyrAspGluLysValAspMetPheSer 162
                                                                                                                                                                                                                                                                                                                                                                               GCTGATGGTTTGAGATACCTCCACTCAGCCATGATTATATACCGAGACCTGAAACCCCCAC 3913
                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCAGC-----CTCACTAGAACCCTÁCAGAGAGGATTGCÁCTCCACGTA 3853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgAspSerSerPheIleProLeuGlyHisMetLeuThrGlnLysIleAlaTyrGlnIle 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGTTGGTGATGGAGTTAGCCTTCCAAGGGTTCCTTGGATCGCCTGCTTCAGCAGGACAAA 3808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CysPheAlaLeuGluLeuAlaProLeuSerSerLeuAsnThrValLeuSerGluAsnAla 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTTGCCACCICCACCACCACTTGATATCTTTGCTGGCAGCTGGGATTCGTCCCCGG 3748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuHisAlaLeuGlnHisProCysIleValAlaLeuIleGlyIleSerIleHisProLeu 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGTGAAGATTTTTAATAAACATACATCACTCAGGCTGTTAAGACAAGAGCTTGTGGTG 3688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AlaMetLysAsnPheSerGlu------PheArgGlnGluAlaSerMet
  TTTCCAAATGAGTTTGATGAATTAGAAATACAAGGAAAATTACCTGATCCAGTTAAAGAA 4213
                                                                        TTTGGTTTACTACTCTATGACATTTTGACAACTGGAGGTAGAATAGTAGAGGGTTTGAAG
                                                                                                        TyrGlyMetValLeuTyrGluLeuLeu---SerGlyGlnArgProAlaLeuGly-----
                                                                                                                                                                                                                           GGCATTGCTCAGTACTGCTGTAGAATGGGGATAAAAACATCAGAGGGCACACCAGGGTTT
                                                                                                                                                                                                                                                                 GlyIleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyr 143
                                                                                                                                                                                                                                                                                                       AATGTGCTGCTTTTCACACTGTATCCCAATGCTGCCATCATTGCAAAGATTGCTGACTAC
                                                                                                                                                                                                                                                                                                                                         AsnīleLeuValTrpSerLeuAspValLysGluHisIleAsnIleLysLeuSerAspTyr 123
                                                                                                                                                                                                                                                                                                                                                                                                                    AlaSerGlyLeuAlaTyrLeuHisLysLysAsnIleIlePheCysAspLeuLysSerAsp 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.3e-25
330.50
47.34*
27.34*
                                    -HisHisGlnLeuGlnIleAlaLysLysLeuSerLysGlyIleArgPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5817
108
79
150
59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and
                                                                                                                                                    4093
                                                                                                                                                                                                                                                                                                       3973
                                      195
                                                                            4153
                                                                                                              179
                                                                                                                                                                                                                             4033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멁
                                                      Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 14
US-09-969-347-226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뮤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
US-09-836-392-21 (1-728) x US-09-969-347-226 (1-3454)
                                                                                                                Score:
                                                                                                                                  Pred. No.:
                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                          US-09-969-347-226
                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Cancer Gene Determination TITLE OF INVENTION: Sets FILE REFERENCE: 689290-69 CURRENT APPLICATION NUMBER: US/09/969,347 CURRENT FILING DATE: 2001-10-02 PRIOR APPLICATION NUMBER: US/60/237,598 PRIOR FILING DATE: 2000-10-03 PRIOR APPLICATION NUMBER: US/60/237,604 PRIOR FILING DATE: 2000-10-03
                                                                                                                                                                                                                                             SOFTWARE: PatentIn version
SEQ ID NO 226
LENGTH: 3454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 226, Application US/09969347
Patent No. US20020115085A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Ebner,
                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4214 TATGGTTGTGCCCCA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4360 TAAAAACGTAATTGTTGAATGCATGGTTGCTACACATCACAACAGCAGGAATGCAAGCAT 4419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196 ValLeuGlyGlnProGluGluValGlnPheArgArgLeuGlnAlaLeuMetMetGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITTCTTTTGGTTGGAACCGCTGATGGCAAGTTAGCAATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rLeuValLeuAlaGlyLeuAlaAspGlyLeuValAlaValPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rProAlaValValThrCysPheLeuAlaValProValIleLys-----LysAsnSerTy 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTGGTCATCAATACCGAAGATGGGAAAAAAGAGACATÁCCCTAGAAAAGATGACTGATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    eTyrileTyrThrLeuLysGlyMetCysProLeuAsnThrProGlnGlnAlaLeuAspTh 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rCysGlnLeuGlnValGlnArgSerLeuTrp----ThrAlaThrGluAspGlnLysIl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGATACACTTCTGAGGAAGTTGCTGATAGTAGAATATTGTGCTTAGCCTTG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      uLysGlyLeuMetGluVal----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrValValPheTrpAspGlyLysGluGluSerArg-AsnTyrThrValValAsnThrGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProThrPheAlaThrPheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhe-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGAAAGAAATCCTCAAGAAAGGCCTACTTCTGCCCAGGTCTTTGACATTTTGAATTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TrpAspThrLysProGluLysArgProLeuAlaLeuSerValValSerGlnMetLysAsp 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -GTGCATCTTCCTGTTGAAAAGGAAAGCTGGATTGTGTCTGGGACACAGTCTGGTACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGGCTGGGCTGTGGGCACACCGACAGAGGACAGCTCTCATTTCTTGACTTAAATACTGA
                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Reinhard
                                    3.68e-23
307.50
35.43%
23.80%
8.05%
                                                                                                                                                                                                                                                                                       з.
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gene Determination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----TGGCCTATGGTTGAGAAATTAATTAAACAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----PheserserGlnGlyGlnGlu-----Tyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -GAATTAGTCTGTCT-GACGAGACGCATTTTATTACC 4359
                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                        Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ---GlnArqMetCysCysProGlyMetLysValSe 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Therapeutic
```

368 4744

Screening Using

:: :: :: :: 1743	351 sAsnSerTyrLeuValLeuAlaGlyLeuAlaAspGlyLeuValAlaValPhepro 369 ::::	370	380 rTyrLeuCysSerHisThrAlaAsnArgSerLysPheSerIleAlaAspGluAspAlaAr 400	400 gGlnAsnProTyrProVallys	408AlametGluValVa 412 ::::::	412 lAsnSerGlySerGluValTrpTyrSerAsnGlyProGlyLeu	427LeuVallleAspCysAlaSerLeuGlulleCysArgArgLeu 440 ::: 2085 CACACCCTGGCCTGGCCAGCCTCAATGAGATGGAGAGTTCGCGGAGGCAG 2144	441	452 IValCysSerSerGluGlyArgGlyGluGluValValTrpCysLeuAspAspLysAlaAs 472 ::: ::: :::	472 nSerLeuValMetTyrHisSerThrTyrGlnLeu	486 a 486	487ArgTyrPheCysGlyValProSerProLeuArgAspMetPheProVa 502	502 lArgProLeuAspThrGluProProAlaAlaSerHisThrAlaAsnProLysValProGl 522	522 uGlyAspSerIleAlaAspValSerIleMetTyrSerGluGlubeuGlyThrGlnIleLe 542	542 ulleHisGlnGluSerLeuThrAspTyrCysSerMetSerSerTyrSerSerFroPr 562	562 oArgGlnAlaAlaArgSerProSerSerLeuProSerSerProAlaSerSerSe 581 ::: ::: 2586 TGACGAGGCCGCCGCCGCCCCCCCCCCCCCCCGCGCCCCAC 2645	581 rValProPheSerThr	597 oGly
ପ୍ପ	& 8	AG	SP GS	QY Op	QQ DP	Qy Db	o o	λ q	δ _α	දි දි	B &	, 40	8 %	ò d	& <u>4</u>	\$ G	ව දි	ò
19 GlnGluAlaSerMetLeuHisAlaLeuGlnHisProCygIleValAlaLeuIleGly11e 38	39 SerIleHisProLeuCysPheAlaLeuGluLeuAlaProLeuSerSerLeuAsn 56 ::::	57 ThrValLeuSerGluAsnAlaArgAspSerSerPhelleProLeuGlyHisMetLeuThr 76 ::: 838 AGGTGCTGGCAGGTCGCCGGGTGCCACCTCACGTGCTGGTC 879	AlaSerGlyLeuAlaTyrLeuHisLysLys		114 GluHisIleAsnIleLysLeuSerAspTyrGlyIleSerArgdln 128 		149 ArgProArgileValTyrAspGluLysValAspMetPheSerTyrGlyMetValLeuTyr 168			204 GlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLysProGluLysArg 223						ogingi		338AlaValValThrCysPheLeuAlaValIleLysLy 351

223

```
------CCAGATTTCGGTAGCATCTTGAAG 1353
                                                                                                                                                                                                                                                                         1803 AAGCCCCAGCATCATCCCCCGGCTGAGGCCATTCGCCTGACTCCCGTGGAC----- 1854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ---triccccccc-----crccrcaacaaatacraaaccaaacccacacccacacccca
                                                                                                                                                                                                                                                                                                                                                                                                                          1624 AGCCAGGAGAAGCCCCGCGAAGCGCAAGGGCAACTTCAAGCGCAGCCCCCCCGCTC 1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGGAAGGAAGCAACAGTGGTCATCAAGTGCCCCCAAACTGGGGAAGTCCCCCAAACA 2084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ------AlaMetGluValVa 412
                                                                                                                                                                                                                                                                                                                                                                                           LysGlyLeuMetGlu-ValGlnArgMetCysCys----------------ProGlyMe 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----GluProTyrMetAlaProSerMetValThrSerVa 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1908 COGTGGGCCC---CCAAAGAAGAAGAACTGGTCGGGGGCAAGAAGAAGGGACGAACGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sAsnSerTyrLeuValLeuAlaGlyLeuAlaAspGlyLeuValAlaValPhePro----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        380 rTyrLeuCysSerHisThrAlaAsnArgSerLysPheSerIleAlaAspGluAspAlaAr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ------LysLysLeuSerLysGlyIleArgProValLeuGlyGlnProGluGluVal
                                                                                                                 204 GlnPheArgArgLeuGlnAlaLeuMetMetGluCysTrpAspThrLysProGluLysArg
                                                                                                                                                                                  224 ProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAlaThrPheMetTyr
                                                                                                                                                                                                                                                     244 GluLeuCysCysGlyLysGlnThrAlaPhePheSerSerGlnGlyGlnGluTyrThrVal
                                                                                                                                                                                                                                                                                                                        264 ValPheTrpAspGlyLysGluGluSerArgAsnTyr----ThrValValAsnThrGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                            295 tlysValSerCys-----GlnLeuGlnValGlnArgSerLeuTrpThrAlaThrGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1534 GAGGAGCAGCTGCGGCGGCGGGAGCAGGAGCTGGCAGAACGTGAGATGGACA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               312 uAspGlnLysIleTyrIleTyrThrLeuLysGlyMetCysProLeuAsnThrProGlnGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              --------TCGTGGAACGGGAGCTGCACCTGCTCATGTGCCAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -AlaValValThrCysPheLeuAlaValProValIleLysLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1744 Grecaggeercretecaacterg-garaagggaaaggarecgarggggeerageeceee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----LeuVallleAspCysAlaSerLeuGlulleCysArgArgLeu------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1085 CACACCCATCGCCCTGGCTTCGCCAGCCTCAATGAGATGGAGGAGTTCGCGGAGGCAGA
                                                                      332 nAlaLeuAspThrPro------------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               412 lAsnSerGlySerGluValTrpTyrSerAsnGlyProGlyLeu---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gGlnAsnProTyrProValLys------
                                                                                                                                                                                                                                                                                                                                                                                           282
                  1171
                                                                                                                                                                                                                       1330
                                                                                                                                                    1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2025
                                                  187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      441
                                                                                                                                                                                                             g
                                                                          යි යි
                                                                                                                                            g
                                                                                                                                                                                    à
                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                D
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                   뭐
                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                      쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2706 GGGCCAGTCGCTCACGCCCACCCACGTCACGGCTGTATGCGCTGTGAGCCGCGGGG---CA 2762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   129 SerPheHisGluGlyAlaLeuGlyValGluGlyThrProGlyTyrGlnAlaProGluIle 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    169 GluLeuLeuSerGlyGlnArgProAlaLeuGlyHisHisGlnLeuGlnIleAla----- 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              937 cccarcarcecessacricascricarcascarcarcascricarc----criseassecent 990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGAAGCCGGCTCTTTGGAGCCCTGCAGCCCCAACATAATTGCCCTTAGGGCGCC 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       57 ThrValLeuSerGluAsnAlaArgAspSerSerPhelleProLeuGlyHisMetLeuThr 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GinGluAlaSerMetLeuHisAlaLeuGinHisProCysIleValAlaLeuIleGlyIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            114 GluHisIleAsn------IleLysLeuSerAspTyrGlyIleSerArgGln
                                                                                                                              quence 312, Application US/10171581
blication No. US20030104426A1
blication No. US20030104426A1
blication No. US20030104426A1
blicature no. US20030104426A1
bpLicanT: Linsley, Peter
PPLICANT: Linsley, Peter
PPLICANT: Linsley, Peter
ILE REFERENCE: 9301-157-999
URRENT APPLICATION NUMBER: US/10/171,581
URRENT APPLICATION NUMBER: US/10/171,581
RIOR APPLICATION NUMBER: 00/298,914
RIOR FILING DATE: 2001-06-18
UMBER OF SEQ ID NOS: 366
Q ID NO 312
LENGTH: 3454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        39 SerIleHisPro-----LeuCysPheAlaLeuGluLeuAlaProLeuSerSerLeuAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94 AsnijejjePheCysAspleuLysSerAspAsnijeLeuValTrpSerLeuAspValLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1051 TGGCACAAGACCACCAAGATGAGCGCTGCGGGGACCTACGCCTGGATGGCGCCGGAGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   149 ArgProArglleValTyrAspGluLysValAspMetPheSerTyrGlyMetValLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlnLysleAlaTyrGlnIleAlaSerGlyLeuAlaTyrLeuHisLysLys-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3454
178
87
272
212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9-836-392-21 (1-728) x US-10-171-581-312 (1-3454)
                                                                 2763 ccaacaakackarcaahada 2784
                                  613
                                                                                                                                                                                                                                                                                                                                                                                                                          JBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: X90846
DATABASE ENTRY DATE: 2001-06-18
                                sAspleuThrProMetAspGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3.68e-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               307.50
35.43%
23.80%
8.05%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nt Similarity:
Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                     0-171-581-312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nment Scores:
                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            880
                                  909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No.:
```

1585

332

312

281

263

1623

369

1964

407

400

2024

2144

on completed: December 14, 2003, 09:04:21 time: 604 secs

```
APPLICANT: Marc J. Rubenfield et al.

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: ARRIGORINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: ARRIGORINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE NOT INVENTION: 107196.136
CURRENT APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR PILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
SEQ ID NOS: 33142
SEQ ID NOS: 33142
LENGTH: 663
Sequence 48, Appl Sequence 14, Appl Sequence 12, Appl Sequence 72, Appl Sequence 72, Appl Sequence 20, Appl Sequence 20, Appl Sequence 20, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, Appl Sequence 5, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 24254, Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of Applantage of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             89 CCTGCATCGTGGCGCTCATCGGCATCAGCATCCACCCGCTCTGCTTCGCCTTGGAGCTCG 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---ArgAlaSerProTrpSerThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-836-392-8_COPY_22_2205 (1-2184) x US-09-252-991A-30843 (1-663)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6663
2000
3055
5105
         US-09-345-473E-48
US-09-266-222D-14-14
US-09-266-222D-12
US-08-469-537A-72
US-08-469-537A-72
US-08-469-537A-105
US-08-469-537A-105
US-08-469-537A-105
US-08-489-537A-105
US-08-429-12-20
US-09-221-236-5
US-09-221-236-5
US-09-221-236-5
US-09-221-236-5
US-09-221-236-5
US-09-221-236-5
US-09-221-236-5
US-09-221-236-6
US-09-239-588-2
US-09-239-588-2
US-09-399-588-2
US-09-395-473E-47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10 ProGlnArgirpProProArgArgAlaAla----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Sequence 30843, Application US/09252991A; Patent No. 6551795; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6.76e-15
301.50
31.29%
24.54%
                Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-252-991A-30843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-252-991A-30843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
                42 4244

44 4444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444

44444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No.:
                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 30843, A Sequence 2, Appli Sequence 19, Appli Sequence 19, Appli Sequence 2, Appli Sequence 16, Appli Sequence 11827, A Sequence 31760, A Sequence 43, Appli Sequence 43, Appli Sequence 43, Appli Sequence 24567, A
                                                                                                                                                                                                                  December 14, 2003, 04:49:15; Search time 30.5 Seconds (without alignments) 6059.470 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                              1 atgotgaggcacotgogggo......ttgcactogcaagagaagg 2184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1: /ogn2_6/ptodata/2/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/2/iaa/PCTUG_COMB.pep:*
6: /cgn2_6/ptodata/2/iaa/PCTUG_COMB.pep:*
                                   GenCore version 5.1.6
(c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                              - protein search, using frame_plus_n2p model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-252-991A-30843
US-08-395-580-2
US-08-395-292-2
US-09-345-4738-19
US-09-252-991A-30843
US-09-252-991A-26129
US-09-428-711A-16
US-09-252-991A-21827
US-09-252-991A-31760
US-09-345-4738-43
US-09-345-4738-43
US-09-252-991A-24567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        328717 segs, 42310858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                             US-09-836-392-8_COPY_22_2205
4058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 :-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Issued_Patents_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match Length
                                                                       Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             229901
29901
29901
20001
20001
20001
20001
20001
20001
20001
20001
20001
20001
20001
20001
20001
20001
20001
                                                                                                                                                                                                                                                                                                                                                                                 fect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         imum DB :
imum DB :
                                                                                                                                                              nucleic
                                                                                                                                                                                                                                                                                                                                                                                                              sence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    abase
```

11t

Page 2

255 SerProSerThAnnollyArgPoolablaCyePorthrithThProProBablabanha 274 222 Ch. C. C. C. C. C. C. C. C. C. C. C. C. C.
68
119 CGC

	319 GTGTGGTCCCTTGACGTCAAGGACATCAACATCAAGCTATTGACTACGGATTTCG 244 11eThrTytAspleptal	
8 8 8 8 8 8	3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	~~~
1982 TAAAAGCCCGAGAGCTGCATGGGTGCTGGTGGATGCTGCTGGTGGTGGTGAAGG 2041 603 AlaProProArgProAlaAgArgArgArgArgTrpProTrpArg 617 2042 ACACTGTTGGTGCACTTTGAAAATGAAAACAGAGTGGTGCTGGCGCGTCTGGAGGG 2101 618 SerAlaArgCysSerProArgArgBroThrProArgSerAlaProGlyAlaAla 635 2102 GCTGGGGCCCAGGGAGTTTCTACACAGGGG 2146 616		150 AlaValLysLysValArgAspLeuLysGluThrAspIleLysHisLeuArgLysLeuLys 169 85 CACCCTGCATGGGGCTCATGGGCATCAGCATCCACCGGCTCTGCTTGCC 138

```
Sequence 2, Application PC/TUS9502792

GENERAL INPORMATION:
APPLICANT: Usharani R. Reddy, David Pleasure and the Children's APPLICANT: Hospital of Philadelphia APPLICANT: Hospital of Philadelphia TITLE OF INVENTION: Sequences Encoding the Same and Methods Related Thereto NUMBER OF SEQUENCES:
NUMBER OF SEQUENCES:
ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz and Norris STREET: One Liberty Place - 46th Floor
CITY: Philadelphia
STREET: One Liberty Place - 46th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGAGCTCGCGCCCCCCAGCAGCCTCAACACCCGTGCTGTCCGAGAACGCCCAGAGATTCT 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |||:::
|------ProValThrProSerLeuLeuValAspTrpSerMetGly1leAlaGlyGly 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |||:::|||
|AlavallyslysValArgAspLeuLysGluThrAspIleLysHisLeuArgLysLysLysValArgAspLeuLysGluThrAspIleLysHisLeuArgLysLysValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCATGAAGAACTICTCCGAGTTCCGGCAG----GAGGCCAGCATGCTGCACGCGCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HisproAsnileileThrPheLysGlyValCysThrGlnAlaProCysTyrCysIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     259 CTGGCCTACCTGCACAAAAAAAAAAATCTTCTGTGACCTGAAGTCGGACAACATTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       199 TCCTTTATACCCCTGGGACACATGCTCACCCAAAAATAGCCTACCAGATCGCCTCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             190 MetGluPheCysAlaGlnGlyGlnLeuTyrGluValLeuArgAlaGlyArg-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACCCTGCATCGTGGCGCTCATCGGCATCAGCATCCACCCGCTCTGCTTCGCC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-836-392-8_COPY_22_2205 (1-2184) x PCT-US95-02792-2 (1-859)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   822868
83258
8335
8337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US95/02792
FILING DATE: herewith
CLASSIPICATION:
PRIOR APPLICATION NUMBER: 08/205,018
FILING DATE: 01-MAR-1994
ATOMNEY/AGENT INFORMATION:
NAME: REDECCA L. Ralph (formerly Gaumond)
REGISTRATION NUMBER: 35,152
                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch disk, 720 Kd
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/02792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: CH-0488
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-568-3100
TELEPHONE: 215-568-3439
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2.140-14
295.50
34.27%
22.40%
7.28%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       859 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , MOLECULE TYPE: protein PCT-US95-02792-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                U.S.A.
                                                                                                                                                                                                                                                                                                                                                                    ZIP: 19103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1759 GACTGCGAGGACTCAGACATGCTACATACGCCCGGTGCTGCCTCCGACAGGTCTGAGCAT 1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1579 GCGGACGTGAGCATCATGTACAGTGAGGAGCTGGGCACGCAGATCCTGATCCACCAGGAA 1638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1699 AGGICCCCTCAAGCCICCCCAGCICCCCAGCAAGIICTICCAAGTGTGCCTITCICCACC 1758
                                                                                                                                                                                                                                 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1639 TCACTCACTGACTACTGCTCCATGTCCTCCTACTCCTCATCCCCACCCGGCCAGGCTGCC 1698
                                                                                                                                                                                                                                                                                                                                                                                                                     1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1015 GICGICACCIGCIICIIGGCCGIGCCIGIIAIIAAAAAGAAIICCIACCIGGICIIAGCG 1074
                                                                                                                                     1075 GGCCTCGCCCATGGGCTTGTGGCTGTTTCCCGTGGTGCGGGGCACCCCAAAGGACAGC 1134
                                                                                                                                                                                                                                                                                                                          1195 GCACGGCAGAACCCCTACCCAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCTGAGGTC 1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .-----1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1354 GICGIGIGCAGCICTGAGGGCAGAGGAGGAGGAGGICGICTGGIGCTGCTGG------AIGAC 1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        761 GluGlyThrAlaSerGluPro---SerProSerGlyThrProGluValGly---SerThr 778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             779 AsnThrAspGluArgProAspGluArgSerAspAspMetCysSerGlnGlySerGluIle 798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        668 ovaldiyero-diygludiyvalGlyLeuLeuGlyThrGlyArgGluGlyThrSerGlyA 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ::: :::
708 AlaValThrArgSerGlnLysArgGlyIleSerSerGluGluGluGluGlyGluValAsp 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           573 yProGlySerProGlyGlyLeuGlyGlyGlyProSerAlaTrpGluAlaCysProProAl 593
                                                                                           -- LeuLeuProLysLeuAspAlaAl 521
494 nValProGlnAsnLeuSer------ProHisSerGlnArgProAspIleLeuLysAl 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          688 rgGlyGlySerArgAladlySerGln-HisLeuThrProAlaAlaLeuLeuTyrArgAla
                                                                                                                                                                                                                                                                        528 ----ProGlyCysProLysAlaProProSer---ProGlyArgSerArgArgGlyLysTh
                                                                                                                                                                                                                                 TGCTCCTACCTGTGCTCACACACACAGGTCCAAGTTCAGCATCGCGGATGAAGAC
                                                                                                                                                                                                                                                                                                                                                                      ------LysAlaSerAlaLy
                                                                                                                                                                                                                                                                                                                                                                                                                     TGGTACAGCAATGGGCCGGCCTCCTTGTCATCGACTGTGCCTCCCTGGAGATCTGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 --ACATGGCCC-----CCTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           593 aleuArgGlyLeuHisHisAspLeuLeuLeuArgLysMetSerSerSerProAspLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1408 AAGGCCAACTCCTTGGTGATGTACCACTCCACCTACCAGCTGTGTGCCCGGTACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         653 rSerProAspSerProGlyGlyAlaLysGlyGluProProPro------Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  553 sdlyserCysGlyAspLeuProGlyLeuArgThrAlaValProProHisGluProGlyGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1527 ------CCCGGCAGCCAGCCACACGGCC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .819 GACCTGACCCCCATGGACGGGAG 1842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1504 GIGCGCCCTIGGACACGGAACC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           799 ProLeuAspProProProSerGlu 806
                                                                                                                                                                     GTTACGT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGCTGGAGCCC
                                                                                                                                                                                                                                                                                                                                                                         rArgHisArg-
                                                                                             aGluSer-
                                                                                                                                                                                                                                                                                                                                                                                                                          1255 '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1468
                                                                                                                                                                                                                                   1135
                                                                                                                                                                                                                                                                                                                                                                           545
                                                                                             511
```

3.9 GTGTGGTTCACGTCAAGGAAGAAGAAGAAGAAGAAGAAGAATGAAGAAAGA	Qy 1195 GCACGGCAGAACCCCTACCCAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCTGAGGTC 1254
	rArgHisArgLysAlaSerAlaLy
AGGCAGTCATTCCATGAGGGCGCCCTAGGCGTGGAGGCACTCCTGGCTACCAGGCC	OY 1255 TGGTACAGCAATGGGCCGGGCCTCCTTGTCATCGACTGTGCCTCCTGGAGATCTGCAGG 1314
259 LysGlubeuseraspLysSerThrLysMetSerPheAlaGlyThrValAlaTrpMetAla 278 436 CCAGAGATCAGGCCTCGCATTGTATATGATGAGAAGGTAGATAGTTCTCCTATGGAATG 495	QY 1315 CGGCTGGAGCCCTACATGGCCCACATGGCCCACATGGCCC
::: ProgluvalileArgAsmGluProvalSerGluLysValAsp11eTrpSerPheGlyVal	Db 573 yProGlySerProGlyGlyGlyGlyGlyGlyGlyGlyProSerAlaTrpGluAlaCysProProAl 593 Ov 1345 GTTACGTCA 1353
496 GTGCTCTACGAGTTGCTGTCAGGACGCCCT	593
GCACTGGGCCACCACCACCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGC	Qy 1354 GTGGTGTGCAGCTCTGAGGGCAGAGGAGGAGGTCGTCTGGTGCCTGGATGAC 1407
CCGGTTCTGGGGCAGCGGGAGGAAGTGCAGTTCCGGCGACTGCAGCGCTCATGATGAGAG	dy 1408 AAGGCCAACTCCTTGGTGATGTACCACTCCACCTACCAGCTGTGCCCGGTACTTC 1467
Provativosersercyskroabp	Qy
CysTipashserlysProargashargproservheargGilmileleubeumispeumsp GTGGTGaGCCAGATGAAGGACCCGACTTTTGCCACCTTCATGTATGAACTGTGCTGTGGG :::	Qy 1504 GTGCGGCCCTTGGAACC
	Qy 1527 1548 Qy 1527 1548
ProGInGluThrTyrPheLysSerGlnAlaGluTrpArgGluGluValLysLeuHisPhe ACCGTGGTGTTTTGGAATGGA	Oy 1549
MetArg	OY 1579 GCGGACGTGAGCATCATGTACAGTGAGGAGCTGGGCACGCAGATCCTGATCCACCAGGAA 1638
ArgArgGluGluLeuArgHisAlaLeuAspIleArgGluHisTyrGluArgLysLeuGluTACACGGTGGTGAACACAGAG	Qy 1639 TCACTCACTGACTCCTGCTGCTCCTCTCATCCCCCACCCCGCCAGGTGCC 1698
	Qy 1699 AGGICCCCTCAAGCCTCCCCAGCAACAATTCTTCCAGGIGCCTTTCTCCACC 1758
	QY 1759 GACTGCGAGGACTCAGACATGCTACGTCCGGTGCTGCTGCCGACAGGTCTGAGCAT 1818
474 OHisProSerArgGlyLeuLeuHisGlyAsnThrMetGluLysLeulleLysLysArgAs 494 955 TACACCCTCAAGGGCATGTGCCCCTTAAACACGCCCTAGGACGCCTTGGATACTCCAGCT 1014	Qy 1819 GACCTGACCCCCATGGACGGGAG 1842
nValProglnAsnLeuSerProHisSerGlnArgProAspileLeuLysAl GrogroctGcttcttGGccGTGCTTATTAAAAAGAATTCCTACCTGGTCTTAGCG	RESULT 4 US-09-345-473E-19 ; Sequence 19, Application US/09345473E
511 aGIUSEF	; Patent NO. 6528803 ; GENERAL INFORMATION: ; APPLICANT: Hodge, Martin ; TITLE OF INVENTION: No. 6558903el Kinases and Uses Thereof
521 aleuserdlyvaldlybeu527 1135 TGCTCCTACCTGTGCTCACACAGCCAACAGGTCCAAGTTCAGCATCGCGGATGAAGAC 1194	; FILE REFERENCE: 35800/183781 ; CURRENT APPLICATION NUMBER: US/09/345,473E ; CURRENT FILING DATE: 1999-06-30
528ProGlyCysProLysAlaProProSerProGlyArgSerArgArgGlyLysTh 545): NUMBER OF SEQ ID NOS: 62): SOFTWARE: FastSEQ for Windows Version 4.0): SEQ ID NO 19

08:33:50

Dec 15

ដ្ឋ

```
::: ||||||||::: HisArgThrThrLysMetAlaProGluVallle 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ||||||| :::|||||||::
------PheAlaLysLeuMetGluAspCysTrpAsnProAspProHisSerArg--- 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |||:::|||
------ProSerPheThrAsnIleLeuAspGln 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TICCATGAGGGCGCCTAGGCGTGGAGGGCACTCCTGGCTACCAGGCCCCAGAGATCAGG 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----AAGAAGCTGTCCAAGGGCATCCGCCCGGTTCTGGGGCAGCCGGAGGAAGTGCAG 612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGGCCCTGTCGGTGGTGAGCCCAGATGAAGGACCCGACTTTTGCCACCTTCATGTATGAA 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CIGIGCIGIGGGAAGCAGACAGCCIICITCIC-AICCCAGGGCCAGGAGIACACCGIGGI 791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuThrThr11eGluGluSerGlyPhePheGluMetProLysAspSerPheHisCysLeu 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        67 ATGCTGCACGCGCTGCAGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATCCACCCG 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACATCATCTTCTGTGACCTGAAGTCGGACAACATTCTGGTGTGGTCCCTT----- 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---GACGICAAGGAGCACAICAACAICAAGCIAICIGACIACGGGAIIICGAGGCAGICA 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ------dlyLysArgIleProProAspileLeu 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValAsnTrpAlaValGlnIleAlaArgGlyMetAsnTyrLeuHisAspGluAlaIleVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33 ArgHisAspPróAspGluAspIleSerGlnThrIleGluAsnValArgGlnGluAlaLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGAACGCCAGAGATTCTTCCTTTATACCCCTGGGACACATGCTCACCCAAAAATA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCGCATTGTATATGATGAGGAGGTAGATATGTTCTCCTATGGAATGGTGCTCTACGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgalaSerMetPheSerLysGlySerAspValTrpSerTyrGlyValLeuLeuTrpGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGCACCTGCGGGCCACCGATGCCATGAAGAACTTCTCCGAGGTTCCGGCAGGAGGCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----creareconnecedences de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ------GCCTACCAGATCGCCTCGGCCTGCCCTACCTGCACAAAA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACTAAGCCAGAGAAAGCGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TIGCTGTCAGGACAGCGCCCTGCACTGGGCCACCACCAGCTCCAGATTGCC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                        9-836-392-8_COPY_22_2205 (1-2184) x US-09-345-473E-19 (1-394)
                                                                                                                                                                                                     394
87
108
50
                                                                                                                                                                                                                                           Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTTTTGGGATGGAAAGAGGAGTCCAGGAACTA 824
                                                                                                                                                                                                            ength:
                                                                                                                                                                                                                                                                                                                                                                                           Gabs:
                                                                                                                                                                                                         2.63e-13
279.50
46.05%
29.90%
                                                                                                                                                                                                                                                                                                                                                         6.89%
                      TYPE: PRT
ORGANISM: Homo sapiens
9-345-473E-19
                                                                                                                                                                                                                                                                             ent Similarity:
Local Similarity:
                                                                                                                                                                      nment Scores:
LENGTH: 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93
```

```
1898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCAGTAGTCAGTGAGTTCCTGGTGGATCAGGATCTGCGTGCCCAGCTCCTCACTGT 1598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGCACCCCATGCGGAGTCAGCTCTCGGGCTTTTAAGACGGCAATGACTCGGCCCCGCT 1958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1837 CGTCCATGGGGGTCAGGTCATGCTCAGACCTGTCGGAGGCAGCCACCGGGCGTATGTAGCA 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1777 TGTCTGAGTCCTCGCAGTCGGAGAAAGGCACACTGGAAGAACTTGCTGGGGAGCTGG 1718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2077 CTGTGTTTTCATTTTCAAAGGTGCACACAACAGTGTCCTTTGCCACCACGGCAGCATCCA 2018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaTrpLysPro 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        224
                                                                                                                                                                                                                                                                                                                                                                                                                                                  144 CysCysTrpProAlaProProAlaProAlaSerAlaGlyArgAlaCysCysAlaSerPro 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1957 GGGCTTCAGAATCCTTCTCCAGGCCAATGACGATAACATCTCCCACCGCGCCTGGGGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1717 GGAGGCTTGAGGGGGACCTGGCAGCCTGGCGGGTGGGGATGAGGAGTAGGAGGACATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CysProThrCysAsnSerAlaArgProSerAlalleAlaSerThrAlaArgArgSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   184 SercysGlyArgProProAlaCysSerProValAlaThrAlaProThrAlaThrCysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -------cgaactcccrccccccc---rccagacgccaccacr
                                                                                                                                                                                                                                                                                                                                                                                                                           2170 IGCAAGCCICCAGCCGGCCCAGCICCICGIAGGACTGGTAGAAATGT----
                                                                                                                                                                                                                                                                                                                                                                                                 US-09-836-392-8_COPY_22_2205 (1-2184) x US-09-252-991A-30843 (1-663)
                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
282 GlnAspAsnTrpLysHisGlulleGlnGluMet 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       214 CysAlaCysAlaLysAlaValĠiyŚerAlaArg---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pro---ProSerAlaArgSer-----
                                                                                                                                                                                                                                                              ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                           2.42e-12
268.00
28.89%
23.28%
6.58%
                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                           US-09-252-991A-30843
                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           224
                                                                                                                                                                                                                                                   TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                 Query Match:
DB:
                                                                                                                                                                                                                                                                                                                  Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ģ
  엄
```

658 GCTTAGTGTCCCGGCACTCCATCATGAGCGCCTGCAGTCGCCCCCCCCCC	Oy 457 CAATGCGAGGCCTGATCTCTGGGGCCTGGTAGCCCTACGCCTAGGCCGC 398 Db 618	RESULT 6 US-08-205-018-2 Sequence 2, Application US/08205018 Patent No. 554523 GENERAL INFORMATION: APPLICANT: Reddy, Usharani R. APPLICANT: Pleasure, David TITLE OF INVENTION: Sequences Encoding the Same and Methods Related TITLE OF INVENTION: Sequences Encoding the Same and Methods Related TITLE OF INVENTION: Sequences Encoding the Same and Methods Related TITLE OF INVENTION: Washburn Kurtz Mackiewicz and ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz and ADDRESSEE: No. 5554521% STREET: One Liberty Place - 46th Floor CITY: Philadelphia	COUNTRY: USA ZIP: 19103 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COMPUTER: PatentIn Release #1.0, Version #1.25 SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/205,018 FILING DATE: CLASSIFICATION: 514 ATTORNEY/AGENT INFORMATION: NAME: Gaumond, Rebecca R. REGISTRATION NUMBER: 35,152 REFERENCE/DOCKET NUMBER: GH-0488 TELEFRANCE/DOCKET NUMBER: G-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0
1597 ACATGATGCTCACGCGATGGAGTCCCCTCAGGCACCTTTGGGTTGGCCGTGTGC 1538	337 TrpSerAlaValAlaLysThrSerProTrpProArgTrpProGlyMetProAlaGlyPro 356	Aspaladrgargaseralaserangglyargprodictorgccoreccorecconstances of the constances of the constances of the constances of the constances of the constance of the	1018 CGACAGCTGGAGTATCCAAGGCTGTGTGTTTAAGGGGCACATGCCCTTGAGGG 959 486 Arg

```
745 AAGCAGACAGCCTTCTTCTCTCTCCCAGGGCCAG--------GAGTAC 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :::
395 GluLysIleLysSerGluGlyThrCysLeuHisArgLeuGluGluGluLeuValMetArg 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      583 ccggrrcragagacagccgaagaaarrccagccgacagcagcgcgcrcrargargaag 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                375 ProglnGluThrTyrPheLysSerGlnAlaGluTrpArgGluGluValLysLeuHisPhe 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGAGATCAGGCCTCGCATTGTATATGAGAAGGTAGATATGTTCTCCTATGGAATG 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----GCACTGGGCCACCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGC 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         330 ProvalProSerSerCysProAsp------GlyPheLysIleLeuLeuArgGln 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |||||| | |||:::
170 HisProAsnIleIleThrPheLysGlyValCysThrGlnAlaProCysTyrCysIleLeu 189
                                                                                                                                                                                                                                                                                                                                                    CTGGAGCTCGCGCCCCTCAGCCCTCAACACCCGTGCTGTCCGAGAACGCCAGAGATTCT 198
                                                                                                                                                                                                                                                                                                                                                                                        206
                                                                                                                                                                                                                                                                                                                                                                                                                         258
                                                                                                                                                                                                                                                                                                                                                                                                                                                           223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   258
                                                                                                                                                                                                            84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          784 ACCGTGGTGTTTTGGGATGGA------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           259 CTGGCCTACCTGCACAAAAAAAAAAAATCATCTGTGACCTGAAGTCGGACAACATTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                379 AGGCAG---TCATTCCATGAGGGCGCCCTAGGCGTGGAGGGCACTCCTGGCTACCAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :::::: ||||
259 LysGluLeuSerAspLysSerThrLysMetSerPheAlaGlyThrValAlaTrpMetAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        319 IleTrpGlyValGlySerAanSerLeuHisLeu------
                                                                                                                                                                                                           GCCATGAAGAACTTCTCCGAGTTCCGGCAG---GAGGCCAGCATGCTGCACGCGCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   319 GIGIGGICCCTIGACGICAAGGAGCACAICAACAICAAGCIATCIGACIACGGGAITICG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :::|||
190 MetGluPheCysAlaGlnGlyGlnLeuTyrGluValLeuArgAlaGlyArg------
                                                                                                                                                                                                                                                                                                                                                                                                                         199 ICCITIAIRACCCCIGGGACACAIGCICACCCAAAAAATAGCCIACCAGAICGCCICGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCCCTGCATCGTGGCGCTCATCGGCATCAGCATCCACCCGCTCTGCTTCGCC-----
                                                                                                                                                                         )9-836-392-8_COPY_22_2205 (1-2184) x US-08-205-018-2 (1-668)
                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 805 ---AAAGAGGAGTCCAGGAAC----
                                                                   267.00
34.86%
23.52%
6.58%
                                                                                  Sent Similarity:
: Local Similarity:
:y Match:
                                   ument Scores
18-205-018-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       529
                                                                                                                                                                                                                                                                                  82
                                                                                                                                                                                                                                                                                                                                                        139
                                                      . No. :
```

```
GGAGGCCCGGCCCATTGCTGTACCAGACCTCAGAGCCGCTGTTGACCACCTCCATGGCCT 1220
                                                                                                                                                                                                                                                                                                                                    1219 TCACTGGGTAGGGGTTCT-----GCCGTGCGTCTTCATCCGCGATGCTGA 1175
                                                                                                                                                                                                                                                                                                                                                                                                                   1174 ACTIGGACCTGTTGGCTGTGTGTGAGCACAGGTAGGAGCAGCTGTCCTTTGGGGTGCCCC 1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----CCGCTA 1070
                      TGGTGGAGTGGTACATCACCAAGGAGTTGGCCTTGTCATCCAGGCACCAGACGACCTCCT 1382
                                                                                                 CCCCTCTGCCCTCAGAGCTGCACACGACTGACGTAACCATGGAGGGGGGCCATGTAGGGCT 1322
                                                                                                                                                                            CCAGCCGCCTGCAGATCT---------CCAGGGAGGCACAGTCGATGACAA 1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ---CAGCTGGAGTAT 1004
                                                                                                                                                                                                       Gly------ProvalPro 360
                                                                                                                                                                                                                                                                                                                                                                            361 ArgleuArgArgGlyArgHisArgProGlyIleAlaGlyArgLeuArgProProAla--- 379
                                                                                                                                                                                                                                                                                                                                                                                                                                          ProLeu-----ArgAlaAlaThrValAlaAlaGlyProAlaArgGlnArgHisArgArg 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    393 AlaGlnArgProAlaAlaGlyAlaAspAlaHisLeuAspGlyLeuArgLeuArgProAla 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 433 ArgArgArgProGlyArgHisAlaGlyAlaArgArgProProAlaAlaArgProGluArg 452
                                                            748 GCTTCCCACAGCACAGTTCATACATGAAGGTGGCAAAAGTCGGGTCCTTCATCTGGCTCA 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        838 IGTICACCACCATGTAGTICCTGGACTCCTCTTTTCCATCCCAAAACACCACGGTGTACT 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----AGAAGAAGCTGTCT 749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCACCGACAGGGCCAGCGGTTCTCTGGCTTAGTGTCCCAGCACTCCATCATGAGCG 629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           568 ------AlaGlnArgAlaCysProAlaAlaArgProArgProAspLeuValArgAla 584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   507 AlaGlyProValAlaAlaGlyArgProGlnProPheArgProGluHisPro----Ala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .069 AGACCAGGTAGGAATTCTTTTAATAACAGGCACGAAGAAGAAGCAGGTGACGA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .003 CCAAGGCCT---GTTGGGGTGTGT------TTAAGGGGCACATGCCCTTGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCAGCTCACCTTCATCCCAGGGCAGCACATCCTCTGCACCTCCATGAGGCCCTTCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        525 AspólyLysólyArgLeuArgThrSerArgAlaLysAlaLeuProArgArgArgAlaAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ValProHisGlySer--------ValProHisGlySerGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTGCAGTCGCCGGAACTGCACTTCCTCCGGCTGCCCCAGAACCGGGGGGGATGCCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     568 ACAGCTTCTTGGCAA--------TCTGGAGCTGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      471 ValValAlaAlaProAlaGlyArgArgArgThrGluProGlyLeuArgProAspProAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThralaLeuArgGlnProAlaHisArgArgThrLeuValGluArgAlaAlaAlaGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProalaproGlyThrGlyAlaCysGlnProAlaMetAlaAlaGlyThrArgPro----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                958 TGTAGATGTAGATTTTCTGGTCCTCGGTGGCTGTCCACAGGGATCTCTGGACCTGGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  557 ArgGlnAlaGlyProGlyAlaArgArgArgArg---------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1114 GCACCACGGGAAACACAGG----CCACAAGCCCATCGGCGAGGC----
                                                            GlnArgAlaAlaAlaLeuProArgSer-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   778 CCTGGCCCTGGGATG-----
                      1441
                                                                                                                                       314
                                                                                                                                                                                                                    332
                                                                                                                                                                                                                                                         1279 (
                                                                                                                                                                                                                                                                                                 352 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             688
                                                                                                                                                                                                                                                                                                                                                                                                                                                         380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          585
                                                                                                                                                                            1321
                                                            298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   491
                                                                                                                                                                                                                                                                                                                                                                                                     $ A
                                                                                                                              g
                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                   쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                      d
                                                                                                 ઠે
                                                                                                                                                                          ò
                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    음장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           점 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1478
                                                                                                                                                                                                                                                                                                                                                       2161 CCAGCCGGCCCAGCTCCTCGTAGGACTGGTAGAAATGTCGAACTCCCTGGCGCCCCAGC 2102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002 GAGTCAGCTCTCGGGCTTTTAAGACGGCAATGACTCGGCCCCGCTGGGCTTCAGAATCCT 1943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1822 GGTCATGCTCAGACCTGTCGGAGGCAGCACCGGGCGTATGTAGCATGTCTGAGTCCTCGC 1763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1705 GGGACCTGGCAGCCTGGCGGGGTGGGGATGAGGAGTAGGAGGACATGGAGCAGTAGTCAG 1646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----CACACAGCTGGTAGG 1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------PhedinArgAspArgHisArgPro 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1882 CGGCGAGGATCTTCACGGCCTGCAGGTGCTGGAGGTCTCCCCGGCGTCATGGGGGTCA 1823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----ArgArgGlnHisArgAsp-------ArgProGln 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ------AGCTGGGAGGCTTGAGG 1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1645 TGAGTGATTCCTGGTGGATCAGGATCTGCGTGCCCAGCTCCTCACTGTACATGATGCTCA 1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          258 GlyArgCysProArgProCysArgAlaLeuProGluProGlyGlnProGlyArgGlyAla 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   174 AlaAlaAlaHisArgAlaHisProTyrLeuArgAlaGlyProArgArgArgLeuValGln 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           278 AlaArgArgArgArgArgGlyProValArgArgProPheArgCysThrAlaLeuArgArg 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                194 ProAspAlaProArgHisAspGluProGlyArgProArgCysHisArgGlyGlyProAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1525 GTTCCGTGTCCAAGGGCCGCACGGGAAACA------TGTCCCTGAGGGGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                    2101 CCCTCCAGACGCCAGGCACCACTCTGTGTTTTCATTTTCAAAGGTGCACAACAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------CCACCAGCACCCATGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          130 GlnGluArgCysArgAlaValArgArgArg------AlaGlyArgArgSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1942 TCTCCAGGCCAATGACGATAACATCTCCACCGCGCCTGGGGGACCCAAATGAGGTCTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         149 ---ArgGlyMetGlyArgIleAlaLeuAlaGly-----GlnProArgProGluGly---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240 GlnProArgArgGlnPro----AlaProAlaGlyCysProArgArgGlnProProGly
                                                                                                                                                                                                                                                                                                               9-836-392-8_COPY_22_2205 (1-2184) x US-09-252-991A-26129 (1-885)
                                                                                                                                                                                                                                                                                                                                                                                            ProSerGlyProAlaProArgArgGlnArgArgVal------
                                                                                                                                                                            885
218
50
293
285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1762 AGTCGGTGGAGAAAGGCACACTGGAAGAACTTGCTGGGG-
                                                                                                                                                                                                                  Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          232 GlyLeuSerProAlaGlyGlnGly-------
                                                                                                                                                                            Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              146 AlaGlyĠly-------
                                                                                                                                                                                                                                                           Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1477 GGACCCCCCAGAAGTACCGGG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2041 CCTTTGCCACCACGCAGCAT----
                                                                          TYPE: PRT
ORGANISM: Pseudomonas aeruginosa
9-252-991A-26129
                                                                                                                                                                  3.85e-12
266.00
31.68%
25.77%
6.53%
    1998-07-27
RIOR FILING DATE: 1998-07-
UMBER OF SEQ ID NOS: 33142
Q ID NO 26129
LENGTH: 885
                                                                                                                                                                                                              ent Similarity:
  Local Similarity:
    y Match:
                                                                                                                                                            nment Scores
                                                                                                                                                                                                                                                                                                                                                                                            90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        165
                                                                                                                                                                          No.:
```

470

99

959

490 839 506

524

544

536

```
115 -------IleArgLeuPheLeuGlnGlnIleAlaGlyAlaMetArgLeuLeu 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                 379 AGG-----CAGTCATTCCATGAGGGCGCCCTAGGCGTGGAGGCCACTCCTGGCTACCAG 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  493 ATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCT----GCACTGGGCCACCACCAG 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |||:::|||
249 AlaProLeuArgGlnLeuLeuLeuAlaLeuLeuGlnArgAsnHisLysAspArgMetAsp 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              298 rGlySerGlySerSerSerSerSerSerThrSerHisLeuAlaSerProProSerLe 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGG-------ATGGAAAAG----AGGAGTCCAGGAACTACACGGTGGT---G 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               318 uGlyGluMetGlnGlnLeuGlnLysThrLeuAlaSerProAlaAspThr-AlaGlyPheL 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ||||
338 euHisSerSerArgAspSerGlyGlySerLysAspSerSerCysAspThrAspAspPheV 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ::::|||
358 alMetValProAlaGlnPheProGlyAspLeuValAlaGluAlaProSerAlaLysProP 378
                                                                                                                                                                                                                      82 GlnGluMetAlaAsnSerValTyrLeuValMetGluTyrCysAsnGlyGlyAspLeuAla 101
                                                                                                                                                                                                                                                                                                                                                                                                                        271 CACAAGAAAACATCATCTTCTGTGACCTGAAGTCGGACAACATTCTGGTGTGGTCCCTT 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  331 GACGTCAAG-----GAGCACATCAACATCAAGCTATCTGACTACGGGATTTCG 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCGGTTCTGGGGCAGCCGGAGGAA 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CIGICGGIGGIGAGCCAGAIGAAGGACCCGACTITIGCCA---CCIICAIGIAIGAACIG 735
                                                                                                            55 CAGGAGGCCAGCATGCTGCACGCTTGCAGCACCCTGCATCGTGGCGCTCATCGGCATC 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            835 AACACAGAGAGGCCTCATGGAGGTGCAGAGGAT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          870 --GIGCIGCCCIGGGAI---GAAGGIGAGCIG-----CCAGCICCAGGICCAGAAATCC
                                                                                                                                                                                                                                                                                                                                           211 CIGGGACACATGCTCACCCAAAAAATAGCCTACCAGATCGCCTCGGGCCTGGCCTACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       433 GCCCCAGAGATCAGGCCTCGCATTGTATGATGAGGAAGGTAGATATGTTCTCCTATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCTGTGGGGAAGCAGACATCTTCTCATCCCAGGGCCAGGAGTACACCGTGGTGTTT
                                                                                                                                                 62 LysGlulleLysIleLeuLysGluLeuLysHisGluAsnileValAlaLeuTyrAspPhe
                                                                                                                                                                                          115 AGC-------ATCCACCGCTCTGCTTCGCCTGGAGCTCGCG
                                                                                                                                                                                                                                                                   151 CCGCTCAGCAGCCTCAACACCGTGTGCGAGAACGCCAGAGATTCTTCCTTTATACCC
                                                                           US-09-836-392-8_COPY_22_2205 (1-2184) x US-09-428-711A-16 (1-1050)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       269 PheAspGluPhePheHisHisProPheLeuAspAlaSerProSerValArg
                                                                                                                                                                                                                                                                                                          102 AspTyrLeuHisAlaMetArgThrLeuSerGluAspThr-------
311
217
38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          607 GIGCAGIICCGGCGACTGCAGGCGCICAIGAIGGAG---
Mismatches:
Indels:
23.96% 6.43%
  Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                 g
                                                                                                                                                                                            à
                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |||||||
700 gArgProAlaGluProAlaAlaGluHiBProArgProGlyHisProGlyArgGlyValAr 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               624
                                                                             481 ACATATCTACCTTCTCATCATATACAATGCGAGGCCTGATCTCTGGGGGCCTGGTAGCCAG 422
                                                                                                                  641
                                                                                                                                                     377
                                                                                                                                                                                            661
                                                                                                                                                                                                                                  317
                                                                                                                                                                                                                                                                     673
                                                                                                                                                                                                                                                                                                                                                 n-----LeuLeuProAladlyGlnPr 680
                                                                                                                                                                                                                                                                                                                                                                                        ----- 229
                                                                                                                                                                                                                                                                                                                                                                                                                          680 oGlyThrargProAspArgThrdlyProArgLeuProHisArgHisProAlaAlaGlyAr 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------GGTGAGCATGTCCCAGGGGTATAAAGGAAGA----AT 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               193 CICTGGCGTTCTCGGACAGCACGGTGTTGAGGCTGCTGAGCGGCGGGGGGAGCTCCAGGG--- 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           740 ProArgArgAlaArgAlaProGlyCys-------ProAlaAlaArgAlaGly 754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   755 CysArgAlaArgValAlaAlaThrTyrProAlaGlyArgValArgProAlaArgArgSer 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         136 -----CGAAGCAGAGCGGGTGGATGCTGATGCCGATGAGCGCCACGATGCAGG---GGŢ 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  85 GCTGCAGCGCGTGCAGCATGCTGGCCTGCTGGCGGAACTCGGAGAAGTTCTTCATGGCAT 26
                                                                                                        625 ------ProAlaHisLeuGlnArgArgArgArgAlaGluSerArgGlyProGlu
                                                                                                                                                                               605 ProAlaGlyArgValGlyGlyArgGluAlaGlyArgGlnProAlaTyrProGlyArgArg
                                                                                                                                                         ------CCTCATGGAATGACTGCCTCG
                                                                                                                                                                                                                                                                       CCAGTGCAGGCGCTGTCCTGACAGCAACTCGTAGAGCACCATTCCAT----AGGAGA
                                                                                                                                                                                                                                AAATCCCGTAGTCAGATAGCTTGATGTTGATGTGCTCCTTGACGTCAAGGGACCACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Miramateu, Masaaki
APPLICANT: Shirasawa, Takuji
APPLICANT: Shirasawa, Takuji
APPLICANT: Tokumitsu, Hiroshi
APPLICANT: Tokumitsu, Hiroshi
APPLICANT: No. 6386720uchi, Teruhisa
TITLE OF INVENTION: SERINE/THREONINE PROTEIN KINASE
FILE REFERENCE: 06501-045001
CURRENT PILING DATE: 1999-10-28
PRIOR APPLICATION NUMBER: PCT/JP98/01246
PRIOR APPLICATION NUMBER: PCT/JP98/01246
PRIOR APPLICATION NUMBER: JP 9/124798
PRIOR APPLICATION NUMBER: JP 9/124798
                                                                                                                                                                                                                                                                                                                                                                                        258 ----GCCCGAGGCGATCTGGTAGGCTATTTTTTG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FastSEQ for Windows Version 4.0
                                                                                                                                                       421 GAGTGCCTCCACGCCTAGGGCGC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          equence 16, Application US/09428711A atent No. 6358720 ENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9.9e-12
261.00
35.57%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          :::
775 GlnArgProAla 778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25 CGGTGGCCCGCA 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSRQ for Wi
EQ ID NO 16
LENGTH: 1050
TYPE: PRT
ORGANISM: Homo sapiens
09-428-711A-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-428-711A-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gnment Scores:
                                                                                                                                                                                                                                  376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   228
      535
                                                                                                                                                                                                                                                                                                              316
                                                                                                                                                                                                                                                                                                                                                   673
```

492

795

Qy 1829CCATGGACGGGAGACCTTCAGCCAGCCCTGAAGA 1873	Qy 1989 CCGGGGCTGCCTGCGCTGCTGCTGCTGCCGTGCTGCTAAGGACAC 2045	RESULT 9 US-05-126-991A-21827 US-05-126-991A-21827 Sequence 21877, Application US/09252991A Patent No. 6551795 GENERAL INFORMATION APPLICANT: Marc J. Rubenfield et al. TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS TITLE OF INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS TITLE OF INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS CURRENT PAPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 1999-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR PILING DATE: 1998-02-18 PRIOR PILING DATE: 1998-02-18	; PRICR APPLICATION NUMBER: US 60/094,190 ; PRICR FILING DATE: 1998-07-27 ; NUMBER OF SEQ ID NOS: 33142 ; SEQ ID NO 21827 ; LENGTH: 1093 ; TYPE: PRT ; ORGANISM: Pseudomonas aeruginosa US-09-252-991A-21827	Alignment Scores: Pred. No.: 260.00 Matches: 233	Qy 35 AGAACTTCTCCGAGTTCCGGCAGGAGGCCAGCATGCTGCAGGCAG
919 CTGTGGACAGG	CCTGGTCTTAGCGGGCGCATGGGCTTGTGGCTGTGTTTCCCGTGGTGCGGGGCACCCTGGTCTTTGCCGTGGTGCGGGGCACCCTGGTTTCCCGTGGTGCGGGGCACCCCAAGGGCTGTGTTTCCCGTGGTGCGGGGCACCCCAAGGGCTGTGTTTCCCGTGGTGCTGCTGCTGCTGCTCCAAGGCTGCTGTGTTGCTCACCAAGGGTCCAAGGTCCAAGGTTCAGGATTCCGGATGAAGGGTCCAAGGTTCAAGGTTCAAGGTTCAAGGATGAAGGTCCAAGGATGAAGGCAAGAGGTCAACAGGATGAAGAGCGAAGAAGGCAAGAAGGTCAACAGGATGAAGAGCGAAGAAGGTCAACAGGATGAAGGCAAGAAGGTCAACAGGATGAAGGTCAACAGGAGTCAACAGGAGTCAACAGGAGTCAACAGGAGTCAACAGGAGTCAACAGAGTTAAGTTAAGTTAAGTAACAACAAGATCAACAAGATAACAACAACAAGAACAACAACAACAACAACAACAACAACA	CGGCTCTGAGGTACAGGAATGGGCCGGGCCTCTTGTCATCGACTGTGC	1416 CTCCTTGGTGATGTACCACCCACCTACCAGCTGTGTGCCCGGTACTTCTGCGGGGT 1475		CCTCCCA

150 ProproproArgTrpSerArgProPheArgLeuhlaSerSerArgProLeuhlaLeuThr 1157 CAGCCAACAGGTCCAAGGTCGACGAACGCGAACGCGCACGGAAGGCCCTACGACGAAGGCCTACGAAGGCCCTACGAAGGCCTACGAAGGCCTACGAAGGCCCTACGAAGGCCTACGAAGGCCCTACGAAGGCCCTACGAAGGCCTACGAAGGCCTACGAAGGCCCTACGAAGGCCCTACGAAGGCCCTACGAAGGCCCTACGAAGGCCTACGAAGGCCCTACGAAGGCCCTACGAAGGCCCTACGAAGGCCCTACGAAGGCCCTACGAAGGCCCTACGAAGGCCCTACGAAGGCCCTACGAAGGCCCCAGGCCCCCCAGGCCCCCCCC	
Alaber TGAAGH AGAGGCC AGGCCC AGGCCC AGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCC AGGCCC AGCCC AGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCC AGGCCC AGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCCC AGGCC	998 1027 390 ArgLeuAlaAlaArgValLysAlaArgSerLeuGluIleSerProProAlaProLeu 409 409 ArgLeuAlaAlaArgValLysAlaArgSerLeuGluIleSerProProAlaProLeu 409 400 ArgLeuAlaArgValLysAlaArgSerLeuGluIleSerProProBroLeu 409 410 SerThrAlaProSerTrpArgSerSerSerSerAlaProGlyValAlaIleArgProProSer 429 410 TTATTAAAAAGAATTCCTACTGGTCTTAGCGGCCTTGGCGATGGGCTTGTGGTGTTT 1102 430 ArgLeuThrSerValProProLeuArgSerArgValThrProValSerLeuThrArgThr 449 430 ArgLeuThrSerValProProLeuArgSerArgValThrProValSerLeuThrArgThr 449 430 TTCCGTGGTGCGGGGCCCCAAAGGACAGCTGCTCCTACCTGTCCTACCTGTCTACACA 1156 430 TTCCCGTGGTGCGGGGCCCCAAAGGACAGCTGCTCCTACCTGTCTCACACA 1156 430 TTCCCGTGGTGCGGGGCCCCAAAGGACAGCTGCTCCTACCTGTCCACACA 1156 440 TTCCCGTGGTGCGGGGCCCCAAAGGACAGCTGCTCCTACCTGTCCACACA 1156 450 TTCCCGTGGTGCGGGGCACCCCAAAGGACAGCTGCTCCTACCTGTCCACACA 1156 450 TTCCCGTGGTGCGGGGCACCCCAAAGGACAGCTGCTCCTACCTGTCCACACA 1156 450 TTCCCGTGGTGCGGGGCACCCCAAAGGACAGCTGCTCCTACCTGTCCACACACA

CAGCATGCTGCACGCGCTGCACCCTGCATCGTGCGCTCATCGGCATCAG	504 CGAGTTGCTCAG	1358 laseraladlyArgArgArg-1
B 2 B 2 B 2 B 2 B 2 B 2 B 2 B 2 B 2 B 2	3 E 2 E 2 E 2 E 2 E 2 E 2 E 2 E 2 E 2 E	4 6 4 6
1838	ILT 10 19-252-991A-31760 Square 31760, Application US/09252931A Feath No. 6521795 ENERAL INPORMATION: PETER NO. 6521795 ENERAL INPORMATION: PETER NO. 6521795 ENERAL INPORMATION: PETER OF INVENTION: PETER OF OF 136 PRIOR APPLICATION NUMBER: US/09/252,991A PRIOR APPLICATION NUMBER: US/09/252,991A PRIOR APPLICATION NUMBER: US/09/252,991A PRIOR PETING DATE: 1998-07-18 PRIOR RELING DATE: 1998-07-27 PRIOR RELING DATE: 1998-07-27 PETER OF SEQ ID NOS: 33142 LENGTH: 1706 DENGTH: 36-392-8_COPY_22_2205 (1-2184)	

Db 1649 GlyGlyArgSerGlyValGluGlyAspTrpArgGlyArgAlaAlaGlyAspGlyGly 1668 Qy 2007 TGGGGTGCTGGTGGATGCTGCGTGGTGGCAAAGGACACTTTGAAAA 2066	RESULT 11 US-09-345-473E-43 Sequence 43, Application US/09345473E Sequence 43, Application US/09345473E Patent No. 6558903 GENERAL INFORMATION: APPLICANT: HORGOS, Martin TILE OF INVENTION: No. 6558903e1 Kinases and Uses Thereof PILE REFERENCE: 35800/183781 CURRENT APPLICATION NUMBER: US/09/345,473E CURRENT FILING DATE: 1999-06-30 NUMBER OF SEQ ID NOS: 62 SOFTWARE: FastSEQ for Windows Version 4.0	1 SEQ 1D NO 43 1 SEQ 1D NO 43 1 SEQ 1D NO 43 1 SEQ 1D NO 43 1 SEQ 1D NO 43 1 SEQ 1D NO 43 1 SEQ 1D NO 43 1 SEQ 1D NO 43 1 SEQ 1D NO 43 1 SEQ 1D NO 43 1 SEQ 1D NO 43 1 SEQ 1D NO 43 1 SEQ 1D NO 44 1 SEQ 1D NO 45 1 SE	Db 94 ArgGlyAsnThrLeuArgGluValGlnLeuMetAsnArgLeuArgHieFroAsnTieLeu 113 Qy 100 GCGCTCATCGGCATCCACCCGCTTGCTTCGCCTGGAGCTCGCGCCGCTCAGC 159 114 ArgPheMetGlyValCysValHisGlnGlyGlnLeuHis 126 Qy 160 AGCCTCAACACCGTGCTGCGAGAACGCCAGAGATTCTTCCTTTATACC 210 117 AlaLeuThrGluTyrMetAsnGlyGlyThrLeuGluGlnLeuLeuSerSerFroGluFro 146		Tepro ACCAG TrpMet ATGGA TATGGA
1386 1074 GGGCCTCGCCGATGGGCTTTGTGGCTGTGTTTCCCGTGGTGCGGGCACCCCCAAAGGACAG 1133 11387		1359 GTGCAGCTCTGAGGGAGGAGGAGGTCGTCTGGTGCCTGGATGACGAGGCCAACTC 1418	GATCCACCAGGAGTTCACTCACTGATTCATCTCATGATTCACTCAC	1571 rgLeuGlyAlaAspArgGlnGlyArgPro	1890 CCTCATTTGGGTCCCCAGGCGCGGTGGAGATGTTATCGTCATTGGCCTGGAGAAGGATTC 1949

Qy 1363 AGCTCTGAGGGCAGAGGGGAGGAGGTCGTCTGGTCCC	Qy 1423 GTGATGTACCACTACCACCTACCAGCTGTGTGCCC	Oy 1483 CCCTCAGGGACATGTTTCCCGTGCGGCCCTTGGACA 	Qy 1543 ACGCCAACCCAAAGGTGCCTGAGGGGACTCCATCG	Oy 1603 GAGGAGCTGGGCACGCAGTCCTGATCCACCAGGAAT	Qy 1663 TCCTCTACTCCTCATCCCCACCCGGCCAGGCTGCCA	RESULT 12 US-09-252-991A-24567 ; Sequence 24567, Application US/09252991A ; Patent No. 6551795	GENERAL INFORMATION: APPLICANT: MARLJ. RUDENfield et al. TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS	; FILE REFERENCE: 107196.136 ; CURRENT APPLICATION NUMBER: US/09/252,991A ; CURRENT FILING DATE: 1999-02-18 ; PRIOR APPLICATION NUMBER: US 60/074,788	PRIOR FILING DATE: 1998-02-18 ; PRIOR APPLICATION NUMBER: US 60/094,190 ; PRIOR FILING DATE: 1998-07-27 ; NUMBER OF SEQ ID NOS: 33142	; SEQ ID NO 24567 ; TMDGTH: 681 ; TYPE: PRT ; ORGANISM: Pseudomonas aeruginosa	ignment Scores:	Score: 253.00 Matches: Percent Similarity: 29.96\$ Conservative Best Local Similarity: 26.22\$ Mismatches: Query Match: 6.21\$ Indels:	4 Gaps: US-09-836-392-8_COPY_22_2205 (1-2184) x US-09-252-9	Qy 1840 CCCGTCCATGGGGGTCAGGTCATGCTC	Qy 1795CACCGGGCGTATGTAGCATGTCTGAGT Db 19 ThrArgArgSerSerAlaAlaCyBTrpLyBHisSerA	Qy 1759 CGGTGGAGAAAGGCACACTGGAAGAACTTGCTGGGGAA 	Qy 1699	TASATTAGATTAGATTAGATTAGATTAGATTAGATTAGA
493 AIGGIGCICTACGAGIIGCIGICAGGACAGCGCCCIGCACIG 534	265 GluasphedlyLeurantalantayarronianspriohsplyThenkrohiginr 264	CAGCCGGAGGAGGAGTTCCGGCGACTGCAGGCGCTCATGATGAGGGTGCTGGGACACT	ccrerce	694 CAGATGAAGGACCCGACTTTTGCCACCTTCATGTATGAACTGTGCTGTGGGAAGCAGACA 753 ::: :: 317 GlnLeuProGluProAlaProLeuThrArgThr 327	754 GCCTTCTTCTCATCCCAGGGCCAGGAGTACACCGTGGTGTTTTGGGATGGAAAGAGGAG 813 	814 TCCAGGAACTACACGGTGGTGAACACAGAGAGGCCTCATGGAGGTGCAGAGGATGTGC 873 340	874 TGCCCTGGGATGAAGGTGACCTCCAGGTCCAGAGATCCCTGTGGACAGCCACC 933	934 GAGGACCAGAAAATCTACATCTACACCTCAA	966GGGCATGTGCCCC 978	979 TTAAACACCCCAACAGGCCTTGGATACTCCAGCTGTGTCACCTGCTTCTTGGCCGTG 1038	1039 CCTGTTATAAAAGAATTCCTACCTGGTCTTAGCGGGCCTCGCCCATGGGCTTGTGGCT 1098	1099 GTGTTTCCCGTGGTGCACCCCAAAGGACAGCTGCTCCTAC 1143	1144 CTGTGCTCACACACCCAACA	CACGGCAGAACCCCTACCCAGTGAAGGCCATGGAGGTG ::	GTCAACAGGGCTCTGAGGTCTGGTACAGCAATGGGCCGGGCCTCCTTGTCATCGACTGT	OCCIOCATO DE LA CONTRACTOR DE LA CONTRAC		523 lAsnSerProGlnGlyTrpAlaGlyGluProTrpAsnArgAlaGlnHisSe 540

0y 1363 AGTTCTGAGGGCAGAGGGGGAGCAGGTCGCTGGTCTGGAGCTACAAGGCCAACTCCTTG 540 FLGUETCALTAIA 551	TGGTCTGGTGCTGGATGACAGGCCAACTCCTTG 1422 AlanalaLeuGluhrgThrGlubro 552 AGGTGTGTGCGGGTACTTCTGGGGGGTCCCAG 1482
---	---

10 10 10 10 10 10 10 10
2 3

```
1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1441 ACCTACCAGCTGTGTGCCCGGTACTTCTGCGGGTCCCCCAGCCCCTCAGGGACATGTTT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1054 AATTCCTACCTGGTCTTAGCGGCCTCGCCGATGGGCTTGTGGGCTGTGTTTCCCGTGGTG 1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1501 CCCGTGCGCCCTTGGACACGGAACCCCGGCAGCCACCACGGCCAACCCAAAGGTG 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTGAGGGGACTCCATCGCGGACGTGAGCATCATGTACAGTGAGGAGCTGGGCACGCAG 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGGCCTTGGATACTCCAGCTGTCGTCACCTGCTTCTTGGCCGTGCCTGTTATTAAAAAG 1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCAAGTTCAGCATCGCGGATGAAGACGCACGGCAGAACCCCTACCCAGTGAAGGCCATG 1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -------TGGTTACGTCAGTCTGCTCAGTCTGCTCTGAGCCTCTGAGGCAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 543
                                                                                                                                                                                                                                                                                                                                  352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         483
                                                                                                                                                                                                                                                                                              894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      392 IleLysLeuLeuAspThrProCysLysProAlaThrProLeuProLeuValProProSer 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ralaserginprofrpseralaargProdiyProserLeuAsnAsnAsnProProAlaVa 523
CAGCCGGAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACT
                                                                                                                                                                                                                                                                                                                          -----SerValProArgGlyGlyProSerAlaThrLeuProArgSerAspProArgL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ::: |||| :::|||
372 lyAspAsnLeuThrArgValAsnProPheSerLeuArg-GluAspLeuArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----ATGTGCCCTTAAACACCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            483 yProAlaProGinLeuProLeuAlaValAlaThrAspAsnPhelleSerThrCysSerSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGGAGGTCGTCTGGTGCTGGATGACAAGGCCAACTCCTTGGTGATGTACCACTCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oproproserAlaProArgGluGluGluGluGlyLeuProCysPro---GlyCysCysLe
                                                                                                  GCCACCTTCATGTATGAACTGTGTGGGAAGCAGACAGCCTTCTTCTCATCCCAGGGC
                                                                                                                                                                                  -----IleLeuGlu--GlnLeuProGluProThrProLeuAlaLysMetPro---
                                                                                                                                                                                                                      CAGGAGTACACCGTGGTGTTTTGGGATGGAAAAGAGAGTCCAGGAACTACACGGTGGTG
                                                                                                                                                                                                                                                                                              AACACAGAGAAGGGCCTCATGGAGGTGCAGAGGATGTGCTGCCCTGGGATGAAGGTGAGC
                                                                                                                                                                                                                                                                                                                                                                   -----GCTCCAGGTCCAGAGATCCCTGTGGAC----
                                                                                                                                                                                                                                                                                                                                                                                                         352 euSerArgSerAspLeuPheLeuProProSerProGluSerProProSerTrpG
                                                                                                                                                                                                                                                                                                                                                                                                                                              -----AGCCACCGAGGACCAGAAAATCTACATCTACACCCTCAAGGGC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         431 uThrProValArgArgCysArgSerLeuProSerSerProGluLeu-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 523 lValValAsnSerProGlnGlyTrpAlaArgGluProTrpAsnArgAlaGlnHisSerLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         u-----SerProPheSerPheGlyPheLeuSerMetCysProArgProThrProAlaVa
                                                                      AAGCCAGAGAAGCGACCGCTGGCCCTGTCGGTGGTGAGCCCAGATGAAGGACCCGACTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1114 CGGGGCACCCCAAAGG-----ACAGCTGCTCCTACCTGTGCTCACACACAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ------ProArgArgMetGluThrAlaLeuProGly----ProGlyProSerProValGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       463 yProSerThrGluGluArgMetAspCysGluGlySerSerProGluProProProGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     543 uProArgAlaAlaAlaLeuGluArgThrGluProSer---------Pr
                               ----LeuLeuLeuAlaIleHisCysCysSerMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProLeuThrSerThr-GinLeuProLeuValAlaSerProGluSerLeuValGlnProGl
                                                                                                                                                                                                                                                         ----LeuAlaLysAlaProLeuThrTyrAsnGlnGly-----
                                   AsnAspCysProLeuProPhe-----
                                                                                                                                                                                                                                                                                                                                                                       TGCCA-----
                                                                        655
                                                                                                                                                                                                                                                                                                835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
595
                                   275
                                                                                                                                               715
                                                                                                                                                                                                                                                           324
                                                                                                                                                                                                                                                                                                                                                                       895
                                                                                                                                                                                                                                                                                                                                                                                                                                              927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                             셤
                                                                      ઠે
                                                                                                  셤
                                                                                                                                     ò
                                                                                                                                                                              g
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                            \dot{\delta}
                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                         \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ||| Asp-----GlyGlyPheThrAlaValValGlyAspPheGlyLeuAlaGluLysIlePro 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 GCGCTCATCGGCATCAGCATCCACCCGCTCTGCTTCGCCCTGGAGCTCGCGCCGCTCAGC 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  385 TCATTCCATGAGGGGGCC------CTAGGCGTGGAGGGCACTCCTGGCTACCAG 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGAAGGTAGATATGTTCTCCTATGGA 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ------GlyGlnLeuHis 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HisAlaLysGlyValPheHisArgAspLeuThrSerLysAshCysLeuValArgArgGlu 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :::||||||
| IleValLeuCysGluLeuIleAlaArgValProAlaAspProAspTyrLeuProArgThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :::||||||
ValArgHisArgGlnSerGlyGlnValMetValLeuLysMetAsnLysLeuProSerAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               40 TICTCCGAGITCCGGCAGGAGGCCAGCATGCTGCAGCAGCGGCTGCAGCACCCCTGCATCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGGACACATGCTCACCCAAAAATAGCCTACCAGATCGCCTCGGGCCTGGCCTACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuSerTrpProvalArgLeuHisLeuAlaLeuAspileAlaGlnGlyLeuArgTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----GGACAGCGCCCTGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 160 AGCCTCAACACCGTGCTGTCCGAGAACGCCAGAGAT------TCTTCCTTTATACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCCACCACCACCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCGGTTCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACGTCAAGGAGCACATCAACATCAAGCTATCTGACTACGGGATTTCGAGGCAG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     x US-09-345-473E-48 (1-628)
                                             iquence 48, Application US/09345473E
tent No. 6558903
NERAL INFORMATION:
NPLICANT: HOGG, Martin
TILE OF INVENTION: No. 6558903e1 Kinases and Uses Thereof
TILE REFERENCE: 35600/183781
URRENT FILING DATE: 1999-06-30
UMRENT FILING DATE: 1999-06-30
UMRENT FILING DATE: 1999-06-30
UMRENT FILING DATE: 1090-06-30
UMRENT FILING DATE: 1090-06-30
UMRENT FILING DATE: 1090-06-30
                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           109 ArgPheMetĠİyvalCysValHisGln-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGGTGCTCTACGAGTTGCTGTCA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9-836-392-8_COPY_22_2205 (1-2184)
                                                                                                                                                                                                                                                                                                                                                                     3.94e-11
252.00
35.56%
24.29%
6.21%
                                                                                                                                                                                                                                   O ID NO 48
LENGTH: 628
TYPE: PRT
ORGANISM: Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                         ent Similarity:
Local Similarity:
                                                                                                                                                                                                                                                                                                                  9-345-473E-48
                                                                                                                                                                                                                                                                                                                                                  nment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            433
```

433 GCCCCAGAGATCAGGCTCGCATTGTATATGATGAGAAGGTAGATATGTTCTCCTATGGA 492	ThrileValTyrGlnCysLeuThrGlyLysAlaProPheGlnAlaSerSerProGlnAsp CTCCAGATTGCCAAGAGGTGTCCAAGGGCATCGCCCGGTTCTGGGGCAGCCGAAGGAA		667	285 LysLysSerProPro-ValProValProSerTyrProSerSerGlySerSerSe 304 754 GCCTTCTTCTCATCCCAGGGCCAGGAGTACACCGTGGTGTTTTGGGATGAAAAGAGGAG 813 304 rSerSerSerSer	814 TCCAGGAACTACACGGTGGAACACAGAAGGCCTCATGGAGGGTGCAGAGGATGTGC 873 307	308SeralaserHisLeualaserProbroserLeudivgiume 321 931 ACCGAGGACCAGAAAATCTACATCTACACCCTCAAGGGCATGTGCCCCTTAAACACCCC 990	991 CAACAGGCCTTGGATACTCCAGCTGTCGA	### SASTATATAGE CONTROLL		1138 TCCTACCTGTGCTCACACACAG	425 GTyrGlyAlaSerValProlleProValProHhidhrGlnvalHisAsnryrGlnArgileGl 445 1192 GACGCACGCAGAACCCCTACCCAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCTGAG 1251 : :: :::: ::
à a à	3 a &	9	ò a ò	9 5 9	o da o	90 & 90 60 & 90	\$ 8 8	8 8 8	8 & 8	da ç	95 40 60 60 60
	CCACCCGCCAGGCTGCCAGGT 1702 ::: SerieuGlnLeuProdly 625	JLT 14 19-428-711A-14 squence 14, Application US/09428711A atent No. 6358720 ENERAL INFORMATION APPLICAMY: Muranalay, Magaaki	APPLICANT: Shirasawa, Takuji APPLICANT: Tokumitsu, Hiroshi APPLICANT: No. 6158720uchi, Teruhisa TITLE OF INVENTION: SERINE/THREONINE PROTEIN KINASE FILE REFERENCE: 06501-045001	CURRENT APPLICATION NUMBER: US/09/428,/11A CURRENT FILING DATE: 1999-10-28 PRIOR APPLICATION NUMBER: PCT/JP98/01246 PRIOR FILING DATE: 1998-32 PRIOR APPLICATION NUMBER: JP 9/124798 PRIOR FILING DATE: 1997-04-28	NUMBER OF SEQ ID NOS: 21 SOFTWARE FastSEQ for Windows Version 4.0 EQ ID NO 14 TYPE: PRT CRGANISM: Mus musculus	1.64e-10 Length: 245.00 Matches: 32.92% Conservative:	t Local Similarity: 22.11% Mismatches: 259 ry Match: 6.04% Indels: 281 4 Gaps: 35 09-836-392-8_COPY_22_2205 (1-2184) x US-09-428-711A-14 (1-1051)	55 CAGGAGCCAGCATGCTGCACGCTGCAGCACCCTGCATCGTGGCGCTCATCGGCATC 114 :::		CTGGGACACATGCTCACCAAAAAATAGCCTACACGGGCCTGGGCCTGGCCTACCTG CTGGGACACATGCCTACACGGGCCTGGGCCTGGCCT	

```
||| :::|||
89 AlaPheAspValValThrAsnAlaLysArgThrLeuArgGluLeuLysIleLeuLysHis 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            133 -----TICGCCCTGGAGCTCGCGCCGCTCAGCACCCTCAACACCGTGTTGTCCGAGAAC 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           128 GlyGluPheLysSerValTyrValValLeuAspLeuMetGluSerAspLeuHisGlnIle 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     247 ATCGCCTCGGCCTGGCCTACCTGCACAAAAAAAATCATCTTCTGTGACCTGAAGTCG 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACAACATTCTGGTGTGGTCCCTTGACGTCAAGGAGCACATCAACATCAAGCTATCTGAC 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              400 GCCCTAGGCGTGGAGGGCACTCCTGGCTACCAGGCCCCCAGAGATCAGGCCTCGCATT--- 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              238 GluTyrThrGlnalalleAspLeuTrpSerValGlyCysIlePheGlyGluMetLeuala 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  274 -----IleMetMetValLeuGlyThrProSerProAlaValIleGlnAlaValGly 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    291 AlaGluArgvalArgAlaTyrIleGlnSerLeuProProArgGlnProValProfrpGlu 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    517 GGACAGCGC-----CCTGCACTGGGCCAC---CACCAGCTCCAGATTGCCAAGAAGCTG 567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               568 TCCAAGGGCATCCGCCCGGTTCTGGGGCAGCCG-------GAGGAAGTGCAG 612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---TGGGAC 651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19 GCCACCGATGCCATGAAGAACTTCTCGAGTTCCGGCAGGAGGCCAGGATGCTGCACGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79 CTGCAGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATCCACCCGCTCTGC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     187 GCCAGAGATTCTTCCTTTATACCCCTGGGACACATGCTCACCCAAAAATAGCCTACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |||-:::||
186 SerAsnLeuLeu------ValAsnGluAsnCysGluLeuLysIleGlyAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 :::|||:::::|||
201 PheGlyMetAlaArgGlyLeuCysThrSerProAlaGluHisGlnTyrPheMetThrGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               258 ArgArgGlnLeuPheProGlyLysAsnTyrValHisGlnLeuGlnLeu-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ---CAGTCATTCCATGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            457 GTATATGATGAGGAAGGTAGATATGTTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   652 ACT---AAGCCAGAGAAGCGACCGCTGTCGGTGGTGAGCCAGATG------
TITLE OF INVENTION: Syndrome (HPS) Protein Complexes and HPS Protein-TITLE OF INVENTION: Interacting Proteins
FILE REFERENCE: 1596-523
CURRENT APPLICATION NUMBER: US/09/266,225D
CURRENT FILING DATE: 1999-03-10
NUMBER OF SEQ ID NOS: 19
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-836-392-8_COPY_22_2205 (1-2184) x US-09-266-225D-12 (1-816)
                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          613 TTCCGGCGACTGCAGGCGCTCATGATGGAGTGC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      367 TACGGGATTTCGAGG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps:
                                                                                                                                                                                                                                                                                                                               1.638-10
244.50
34.478
23.26%
6.03%
                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                          US-09-266-225D-12
                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             307
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match:
DB:
                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                  ..
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1659
                                                                                                                                                                                                                                                                         1660 ATGTCCTCCTACTCCTCATCCCCACCCGCCAGGCTGCCAGGTCCCCCTCAAGCCTCCCC 1719
1300 CTGGAGATCTGCAGGCGGCTGGAGCCCTACATGGCCCCCTCCATGGTTACGTCAGTCGTG 1359
                                                                                                                                                                                                                                                                                                                                                                    1540 CACACGGCCAACCCAAAGGTGCCTGAGGGGACTCCATCGCGGACGTGAGCATCATGTAC 1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1720 AGCTCCCCAGCAAGTTCTTCCAGTGTGCCTTTCTCCACCG---ACTGCGAGGACTCAGAC 1776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1777 ATGCTACATACGCCCGGTGCTGCCTCCGACAGGTCTGAGCATGACCTGACCCCCATGGAC 1836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------TCCCCAGGCGCGCGTGGAGATGTTATCGTCATTGGCCTGGAGAAGG-- 1945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -ATTCTGAAGCCCAAGCGGGCCGAGTCATTGCCGTCTTAAAAGCCCGAGAGCTGACTCCG 2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2065 AATGAAAACACAGAGTGGTGCCTGGCCGTCTGGAGGGGCTGGGGCGCCAGGGAGTTCGAC 2124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----ProThrAspProLeuGlyAlaThrPheSerProProGlnThrSerAlaProGlnPr 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----ProGlyLeuGlnSerCysArgProLeuArgGlySerProLysLeuProAspPh 610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             610 eLeuGlnArgSerProLeuProProlleLeuGlySerProThrLysAlaGlyProSerPh 630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           630 eAspPheProLysThrProSerSerGlnAsnLeuLeuThrLeuLeuAlaArgGlnGlyVa 650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------GlySerdlyLeuArgProAlaGluAspThrArgGlyProPheGlyArgSe 691
                                                                                                                                                                              1420 TIGGIGATGIACCACTCCACCACCTACCAGCTGTGCCCCGGTACTTCTGCGGGGGTCCCC
                                                                                                                                                                                                                          501 -----TyrThrProSerProGlnValGlyThrIleProGluArgProSerTrpSerAr
                                                                                                                                                                                                                                                                                                                                                                                                           534 ----ArgProGlySerSerValProGluHisSerProArgThrThrGlyLeuGlyCys--
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1837 GGGGAGACCTTCAGCCAGCACCTGCAGGCCGTGAAGATCCTCGCCG-------
                                                                                      TGCAGCTCTGAGGGCAGAGGAGGAGGTCGTCTGGTGCCTGGATGACAAGGCCAACTCC
                                                                                                                                    487 ----AlaMetLeuAlaArgLysLeuSerLeuGlyGlyGly-----ArgPro----
                                                                                                                                                                                                                                                                                                                     518 gValProser------ProGlnGlyAlaAspValArgValGlyArgSerPro--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -------ArgLeuHisSer----AlaPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    557 dAsnLeuSerAspPheHisValValArgProLysLeuProLysPro-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ------TCAGAGCCTCATTTGGG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     equence 12, Application US/09266225D

tent No. 6573364

NNEAL INFORMATION:
NPDLICANT: Mandabalan, Krishan
NPDLICANT: Kingsmore, Stephen
NPDLICANT: Tchernev, Velizar
NPDLICANT: Tchernev, Velizar
NPDLICANT: Tcherney, Velizar
                                         481 oSerHisThrAspGly ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2125 ATTTCTACCAGE 2137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   oCys----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LT 15
9-266-225D-12
                                                                                        1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 668
```

SerLeubeuGlyArgMetLeuArgPhe 330	3	obroPheAspPheAlaPheAspArqGl 370		CAGCCTTCTTCTCATCCCAGGGCCAG 777	SAGTCCAGGAACTACACGGTGGAAC 837	TGCTGCCCTGGGATGAAGGTGAGCTGC 897 :::	GCCACCGAGGACCAGAAAATCTACATC 954	CCCCAACAGGCCTTGGATACTCCAGCT 1014 ::: :: :: OPTOLYSLYSASpGlyAlalleSerAs 473	AARAAGAATTCCTACCTGGTCTTAGCG 1074	GTGGTGCGGGGCACCCCAAAGACAGC 1134 SerAlaProLeuGluAlaPr 502	TCCAAGTTCAGCATCGCGAATGAAGAC 1194	авастастся с 1254	GACTGTGCCTCCCTGGAGATCTGCAGG 1314	GATGACAAGGCCAACTCCTTGGTGATG 1428	TACTTCTGCGGGGTCCCCCGCC 1488	GAACCCCGGCAGCCAGCCACGGCC 1548	GACGTGAGCATCATGTACAGTGAGGAG 1608
311 ThrValTyrProGlyAlaAspArgGlnAlaLeuSerLeuLeuGlyArgMetLeuArgPhe	331 GluProSerAlaArgIleSerAlaAlaAlaAlaLeuArgHisProPheLeuAlaLysTyr	700 AAGGACCCGACTTTTGCCACCTTCATGT		743GGAAGCAGA	778 GAGTACACCGTGGTGTTTTGGGAAGAGAGGAGTCCAGGAACTACACGGTGGTGAAC 		898 CAGCTCCAGGTCCAGAGATCCCTGTGGACAGCCACCGAGGACCAGAAAATCTACATC :	955 TACACCCTCAAGGGCATGTGCCCCTTAAACACACCCCAACAGGCCTTGGATACTCCAGCT	1015 GTCGTCACCTGCTTCTTGGCCGTGCCTGTTATTAAAAAGAATTCCTACCTGGTCTTAGCG ::::::	1075 GGCCTCGCCGATGGGCTTGTGGCTGTTTCCCGTGGTGCGGGGCACCCCAAAGGACAGC	1135 TGCTCCTACCTGTGCTCACACAGCCAACAGGTCCAAGTTCAGCATCGCGGATGAAGAC	1195 GCACGGCAGAACCCCTACCCAGTGAAGGCCATGGAGGTGGTCAACAGGGCTCTGAGGTC	1255 TGGTACAGCAATGGGCCGGGCCTCCTTGTCATCGACTGTGCCTCCCTGGAGATCTGGAGG :::	1369 GAGGGCAGAGGGAGGTCGTCTGGTCCCTGGATGACGACCAACTCCTTGGTGATG		1489 AGGGACATGTTTCCGTGCGGCCCTTGGACACGGGACCCCGGCAGCCAGC	1549 AACCCAAAGGTGCCTGAGGGGACTCCATCGCGGACGTGAGGATCATGTACAGTGAGGAG

1609 CTGGGCACGCAGATCCTCACTGATCACTCACTGACTACTGCTCCA 1660 :: 624ThrSerGlyProValProGl 630	661TGTCCTCCTACTCCTCATCCCCACCCGCCAGGCTGCCAGGTCCCCTCA 1710	1711 AGCCTCCCCAGCTCCCCAGCAAGTTCTTCCAGTGTGCCTTTCTCCACCGACTGCGAGGAC 1770	TCAGACATGCTACATAGGCCCGGTGCTGCCTCCGACAGGTCTGAGCATGACCTG 1824	1825 ACCCCCATGGACGGGAGACCTTCAGCCAGCACCTGCAGGCCGTGAAGATCCTCGCCGTC 1884	1885 AGAGACCTCATTTGGGTCCCCAGGC 1909	682 yvaibeuriolyirnekiokiodiy oso
1609 (1661 - 630 r	1711 1	1771	1825 7	1885 2	789
\$ 6 6	දු දු	oy Qu	<u>ک</u> م	\$ g	ਨੇ 1	g

Search completed: December 14, 2003, 06:56:55 Job time : 72.5 secs

sence:

. :

```
Sequence 21, Application US/09836392

Patent No. US20020173458A1

GENERAL INFORMATION:

APPLICATIVE RUDEN et al.

TITLE OF INVENTION:

TITLE OF INVENTION:

Antibodies

TITLE OF INVENTION:

ANTIBODIA SPORT CALE

CURRENT APPLICATION NUMBER: US/09/836,392

CURRENT APPLICATION NUMBER: PO00-04-18

PRIOR PRILING DATE: 2001-04-18

PRIOR PRILING DATE: 1999-110-11

PRIOR PLILNG DATE: 1999-110-15

PRIOR PELING DATE: 1999-110-15

PRIOR PELING DATE: 1999-11-17

PRIOR FILING DATE: 1999-11-17

PRIOR FILING DATE: 2000-03-14

PRIOR FILING DATE: 2000-03-14

PRIOR FILING DATE: 2000-03-14

PRIOR FILING DATE: 2000-03-14

PRIOR FILING DATE: 2000-03-14

PRIOR FILING DATE: 2000-03-14

PRIOR FILING DATE: 2000-03-14
                                              2, Appli
8, Appli
4, Appli
1689, Ap
                                                                                                                                                                                        Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                             Appl
Appli
Appli
Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Appl
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                Seguence 48,
                                                                                                                  Sequence 1
Sequence 2
                                                                                                                                                                                                                                                                                                                           Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Seq
                                                                                                                                                                                                              Sequence Sequence
                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
       Sequence
                                                                                                                                                                                        Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                        Sequence
                                                                                              Sequence
                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
US-09-836-392-21
US-10-132-382-6
US-10-132-382-6
US-10-132-382-6
US-10-132-382-8
US-10-132-382-8
US-10-133-382-8
US-10-133-382-8
US-10-133-684-38
US-10-133-684-38
US-10-133-684-38
US-10-133-684-38
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-441
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-153-688-438
US-10-158-174-38
US-10-128-174-38
US-10-128-174-38
US-10-128-174-38
US-10-128-174-38
US-10-128-174-38
US-10-128-174-44
    SEQ ID NO 21
LENGTH: 728
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JS-09-836-392-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            263.5
263.5
262.5
257.5
255.5
255.5
255.5
255.5
  283.5
279.5
276.5
273
                                                                                                                                                                                                                                                                                  nand line parameters:
DEL=frame+. Top. model - DEV=xlp

Cgn2_1/USPTO_spool | D/USO9936392/runat_12122003_142319_29672/app_query.fasta_1.2375
- Published Applications AA - OFMT=fastan - SUFFIX=rapb - MINNATCH=0.1

DPCL=0 - LCOPEXT=0 - UNITS=bits - START=1 - ENDE=1 - MATRIX=blosum62

ANS=human40.cdi - LIST=45 - DOCALIGN=200 - THR SCORE_pect - THR MAX=100

KIEN=200000000 - USER=LCOAL - OUTFFM=pect - THR MAX=100

KIEN=200000000 - USER=LCOAL - OUTFFM=pect - NORM=ext - HEAPSIZE=500 - MINLEN=0

KIEN=200000000 - USER=USO9936392 @CGN 1 1 2 0 @runat 1212203 142319 29672

PUBLE - ICPU=3 - NO MMAP - LARGEQUERY - NEG SCORES=0 - WART - DSPBLOCK=100

ANGLOG - DEV TIMEOUT=12 - WARN TIMEOUT=30 - THREADS=1 - KGAPEXT=0.5

APOP=6 - FGAPEXT=7 - XGAPOP=10 - YGAPEXT=0.5 - DELOP=6 - DELEXT=7
                                                                                                                                                           December 14, 2003, 06:43:31; Search time 268 Seconds (without alignments) 3031.256 Million cell updates/sec

    No. is the number of results predicted by chance to have a
e greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.

                                                                                                                                                                                                                                                                                                     Published Applications Ah:*

| cgn2_6/ptodata/1/pubpaa/USO7_PUBCOMB.pep:*
| cgn2_6/ptodata/1/pubpaa/USO6_NEW_PUB.pep:*
| cgn2_6/ptodata/1/pubpaa/USO6_NEW_PUB.pep:*
| cgn2_6/ptodata/1/pubpaa/USO6_NEW_PUB.pep:*
| cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*
| cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*
| cgn2_6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
| cgn2_6/ptodata/1/pubpaa/USSO_NEW_PUB.pep:*
                             GenCore version 5.1.6
(c) 1993 - 2003 Compugen Ltd.
                                                                                                                    - protein search, using frame plus n2p model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                al number of hits satisfying chosen parameters;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       684280 segs, 185983659 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                       US-09-836-392-8_COPY_22_2205
4058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  t-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                    Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         imum DB seq length: 0 imum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     %
Query
Match Length DB
                                                  Copyright
                                                                                                                                                                                                                                                                                                                                                 BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score
                                                                                                                                                                                                                                                                               fect score:
                                                                                                                                                                                                                                                                                                                                                   ring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            score and is
                                                                                                                    nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         зраве:
```

ult No.

N

```
GTTATCGTCATTGGCCTGGAGAAGGATTCTGAAGCCCCAGCGGGGCCGAAGTCATTGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCGBACAGACTGAGCATGACCTGACCCCCATGGACGGGGACGACCTTCAGCCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGGCGTGAAGATCCTCGCGTCAGAGACCTCATTTGGGTCCCCAGGCGCGGTGGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTAAAAGCCCCGAGAGCTGCCCCATGGGGTGCTGGATGCTGCCGGTGGTGGAAAG
                                                                                                                                                     CCTGAGGGGGACTCCATCGCGGACGTCAACATGTACAGTGAGGAGCTGGGGCACGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         341 ThrCysPheLeuAlaValProValIleLysLysAsnSerTyrLeuValLeuAlaGlyLeu
                                                                                        AGCAATGGGCCGGGCCTCCTTGTCATCGACTGTGCCTCCTGGAGATCTGCAGGCGGCTG
                                                                                                                                                                                            GAGCCCTACATGGCCCCCTCCATGGTTACGTCAGTCGTGTGCACCTCTGAGGGCAGAGGG
                                                                                                                                                                                                                                               GAGGAGGTCGTCTGGTGCCTGGATGACAAGGCCAACTCCTTGGTGATGTACCACTCCACC
                                                                                                                                                                                                                                                        461 GluGluValValTrpCysLeuAspAspLysAlaAsnSerLeuValMetTyrHisSerThr
                                                                                                                                                                                                                                                                             ACCTACCAGCTGTGCCCGGTACTTCTGCGGGGTCCCCCAGCCCCCTCAGGGACATGTTT
                                                                                                                                                                                                                                                                                      ccereceacecrireacacecacacecceacaccaccaccaccaccaacccaaacere
                                                                                                                                                                                                                                                                                                                  ATCTGATCCACCAGGAATCACTGACTACTGCTCCATGTCCTCCTCCTCCTCATCC
                                                                                                                                                                                                                                                                                                                                                                               ceaccececageageageaccecercaagearceceageacceageaccaageageacceageageageacceageageageageacceageageageageageageagea
                                                                                                                                                                                                                                                                                                                                                                                                             ACCIGCITCITGGCCGIGCCIGITATTAAAAAAAATTCCTACCTGGTCTTAGCGGGCCTC
CTCCAGGTCCAGAGATCCCTGTGGACAGCCACCGAGGACCAGAAAATCTACATCTACACC
          1981
                                                                                                                                                                                                                                                                                                                                                                                                                                     1741
                                                                                                        361
                                                                                                                                                                                                    421
                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                  441
                                                                                                                                                                                                                                                 1381
                                                                                                                                                                                                                                                                               1441
                                                                                                                                                                                                                                                                                                             1501
                                                                                                                                                                                                                                                                                                                            501
                                                                                                                                                                                                                                                                                                                                          1561
                                                                                                                                                                                                                                                                                                                                                          521
                                                                                                                                                                                                                                                                                                                                                                         1621
                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                        1681
                                                                                                                                                                                                                                                                                                                                                                                                                      561
                                                                                                                                                                                                                                                                                                                                                                                                                                                     581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             641
                  301
                                196
                                              321
                                                              1021
                                                                                            1081
                                                                                                                                                       1201
                                                                                                                                                                                     1261
  901
                                                                                                                                                                                                                                                                                                                                                     6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                ò 8
                                                                                                                                                                                                                8 8 8
                                                                                                                                                                                                                                                            8 6 8
                                                                                                                                                                                                                                                                                                        8 8 8
                                                          <u>ک</u> ۾
                                                                                       $ A
                                                                                                                        8 8 8
                                                                                                                                                                   g
   6 6 6
                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                      140
                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                    160
                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                                               099
                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          260
                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                           100
                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                        120
                                                                                                                                 120
                                                                                                                                                                180
                                                                                                                                                                                              240
                                                                                                                                                                                                           80
                                                                                                                 20
                                                                                                                                              40
                                                                                                                                                                              69
                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TICATGTATGAACTGTGCTGTGGGAAGCAGACAGCCTTCTTCTCATCCCAGGGCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGGCTTCTGGGGCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                          GAGAAGCGACCGCTGCCCTGTCGGTGAGCCCAGATGAAGGACCCGACTTTTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlulysArgProLeuAlaLeuSerValValSerGlnMetLysAspProThrPheAlaThr
                                                                                                             MetLeuArgH16LeuArgAlaThrAspAlaMetLysAsnPheSerGluPheArgGlnGlu
                                                                                                                                                               CCTGGCTACCAGGCCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGGTAGATATG
                                                                                                                                                                                                                                                                                                                            ProGlyTyrGlnAlaProGluIleArgProArgIleValTyrAspGluLysValAspMet
                                                                                                                                                                                                                                                                                                                                                                                                                GAGGAAGTGCAGTTCCGGCGACTGCAGCGCTCATGATGGAGTGCTGGGACACTAAGCCA
                                                                                                   ATGCTGAGGCACCTGCGGGCCACCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGGAG
                                                                                                                                                                                              GAGAACGCCAGAGATTCTTCCTTTATACCCCTGGGACACATGCTCACCCAAAAATAGCC
                                                                                                                                                                                                                             TACCAGATCGCCTCGGGCCTACCTGCACAGAAAAAAAATTCTGTGACCTG
                                                                                                                                                                                                                                     TyrglnIleAlaSerGlyLeuAlaTyrLeuHisLysLysAsnIleIlePheCysAspLeu
                                                                                                                                                                                                                                                                                        TCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGCCGCCCTAGGCGTGGAGGGCACT
                                                                                     (1-728)
                                 728
000
000
                                                                                     x US-09-836-392-21
                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                     )9-836-392-8_COPY_22_2205 (1-2184)
                                 1.536-230
3822.00
100.00%
100.00%
94.18%
     sapiens
                                         ce:
sent Similarity:
: Local Similarity:
:y Match:
    ORGANISM: Homo
19-836-392-21
                           Scores
                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                                                                                                             221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                    -
                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                   61
                                                                                                                                                 21
                                                                                                                                                                                41
                                                                                                                                                                                               181
                                                                                                                                                                                                             19
                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                          101
                           jnment S.
i. No.:
```

ProGlytyrdlnhlaProdlulleArgProArg11eValTyrAepGluLysValAspMet PheSerTyrdlyMetValLeuTyrdluLeuLeuSerdlydlnArgProAlaLeuGlyHis CACAGGTCCAATTGCCAAGGGCTGCAAGGCCTCATGATGACACGGCCTGAAGGCACTCAAGGCCCGGTTCAAGGCTCCAAGGCCCCGGTTCAAGGCTCCCGGGTTCAAGGCTGCCAAGGCACTCAAGGCCACTAAGCCAGGCAAGTCCAAGGCAAGTCCAAGGCAAGTCAAGGCAAGTCAAGACACTCAAGGCAAGTCAAGGCAAGTCAAGACACTCAAGACACTCAAGACACTCAAGACACTCAAGACACTCAAGACACTCAAGACACTCAAGACACTCAAGACACTCAAGACACACTCAAGACACACAAGACAACACACTCAAGACACACAAGACAACACACTCAAGACACACAAGACAACACATCAAGACAACACACAAGACAACACACAAGACAAACAA	1701 ĠlubroTyrMetAlaProSerMetValThrSerValValCysSerSerGluGlyArgGly 1720 1381 GAGGAGGTGGTGTGGGATGACAAGGCCAACTCCTTGGTGATGTACCACTCCACC 1440 1721 GluGluValValTrpCysLeuAspAspLysAlaAsnSerLeuValMetTyrHisSerThr 1740 1441 ACCTACCAGCTGTGTGCCGGTACTTTGCGGGGTCCCCAGCCCCTCAGGACATGTTT 1500 1741 ThrTyrGlnLeuCysAlaArgTyrPheCysGlyValProSerProLeuArgAspMetPhe 1760 1501 CCCGTGGCGCCCTTGGACACCCCCGGCAGCCCCCAACGTG 1560 1501 ProValArgProLeuAspThrGluProProAlaAlaAserHisThrAlaAsnProLysVal 1780 1761 ProValArgProLeuAspThrGluProProAlaAlaAserHisThrAlaAsnProLysVal 1780
3 3	8 6 8 6 8 6 8
	TYrGlnIleAlaSerGlyLeuAlaTyrLeuHistysLysAsnileIlePheCysAspLeu AAGTCGGACAACATTCTGGTGTGGTCCTTGACGTCAAGGACACATCAACATCAAGGTR AAGTCGGAACAACATTCTGGTGTGGTCCCTTGACGTCAAGGACACATCAACATCAAGGTR INININININININININININININININININININ

9

120

1385

180

1405

300

360

240

1465

420

1485

540

600

099

720

480

1625

840

```
----AsnSerTyrLeuValLeuAlaGlyLeu 1646
                                                                                                                                                                                                                                                                          1406 TyrdlnileAlaSerGlyLeuAlaTyrLeuHisLysLysAsnileIlePheCysAspLeu 1425
                                                                                                                                                                                                                                                                                                                                  1426 LysSerAspAsnIleLeuValTrpSerLeuAspValLysGluHislleAsnIleLysLeu 1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1566 PheMetTyrGluLeuCysCysGlyLysGlnThrAlaPhePheSerSerGlnGlyGlnGlu 1585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1586 TyrThrValValPheTrpAspGlyLysGluGluSerArgAsnTyrThrValValAsnThr 1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .021 ACCTGCTTCTTGGCCGTGCCTGTTATTAAAAGAATTCCTACCTGGTCTTAGCGGCCTC 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081 GCCGATGGGCTTGTGGCTGTTTTCCCGTGGTGCGGGGCACCCCAAAGGACAGCTGCTCC 1140
                                                                                   GAGAAGGGCCTCATGGAGGTGCAGAGGATGTGCTGCCTGGGATGAAGGTGAGCTGCCAG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCCAGGTCCAGAGATCCCTGTGGACAGCCACGAGGACCAGAAAATCTACATCTACACC 960
                    1326 MetLeuArgHisLeuArgAlaThrAspAlaMetLysAsnPheSerGluPheArgGlnGlu
                                                                                                                                           1386 GluAsnAlaArgAspSerSerPhelleProLeuGlyHisMetLeuThrGlnLyslleAla
                                                                                                                                                                                                                                                                                                                                                                                                   1446 SerAspiyrGlylleSerArgGlnSerPheHisGluGlyAlaLeuGlyValGluGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TICTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACCGCCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1606 GluLysGlyLeuMetGluValGlnArgMetCysCysProGlyMetLysValSerCysGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCAAGGGCATGTGCCCCTTAAACACACCCCAACAGGCCTTGGATACTCCAGCTGTCGTC
                                                                                                                          181 GAGAACGCCAGAGATTCTTCCTTTATACCCCTGGGACACATGCTCACCCAAAAATAGCC
                                                                                                                                                                                                                                                     241 TACCAGATCGCCTCGGGCCTGGCCTACCTGCACAAAAAACATCATCTTCTGTGACCTG
                                                                                                                                                                                                                                                                                                                   AAGTCGGACAACATTCTGGTGTGTCCCTTGACGTCAAGGAGCACATCAACATCAAGCTA
                                                                                                                                                                                                                                                                                                                                                                               361 TCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGGCGCCCTAGGCGTGGAGGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                             421 CCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGGAAGGTAGATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCGGTTCTGGGGCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACTAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661 GAGAAGCGACCGCTGGCCCTGTCGGTGGTGAGCCAGATGAAGGACCCGACTTTTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCATGTATGAACTGTGCTGTGGGAAGCAGACAGCCTTCTTCTCATCCCAGGGCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACACCGTGGTGTTTTGGGATGGAAAAGAGGAGTCCAGGAACTACACGGTGGTGAACACA
1 ATGCTGAGGCACCTGCGGGCCACCGATGCCATGAAGAACTTCTCCGGAGTTCCGGCAGGAG
                                                              GCCAGCATGCTGCACGCTGCAGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1626
                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1637
                                                               61
                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             යි දි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                     දු පු
                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                         g
                                                              ઠે
                                                                                     g
                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2040
                                                                              1680
                                                                                                           1820
                                                                                                                                                                           1840
                                                                                                                                                                                                         1800
                                                                                                                                                                                                                                       1860
                                                                                                                                                                                                                                                                     1860
                                                                                                                                                                                                                                                                                                    1880
                                                                                                                                                                                                                                                                                                                                  1920
                                                                                                                                                                                                                                                                                                                                                                  1900
                                                                                                                                                                                                                                                                                                                                                                                                1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2160
                                         ProGluGlyAspSerIleAlaAspValSerIleMetTyrSerGluGluLeuGlyThrGln 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyTrpGlyAlaArgGluPheAspIlePheTyrGlnSerTyrGluGlubeuGlyArgLeu 1980
                                                                                                                                                                                                                                                                                      GInAlaValLysIleLeuAlaValArgAspLeuIleTrpValProArgArgGlyGlyAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspThrValValCysThrPheGluAsnGluAsnThrGluTrpCysLeuAlaValTrpArg
                                                                                                 IlebeulleHisGlnGluSerLeuThrAspTyrCysSerMetSerSerTyrSerSer
                                                                                                                                                            ProProArgGlnAlaAlaArgSerProSerSerLeuProSerSerProAlaSerSerSer
                                                                                                                                                                                                         AGTIGTGCCTTTCTCCACCGACTGCGAGGACTCAGACATGCTACATACGCCCGGTGCTGCC
                                                                                                                                                                                                                           Serval ProPheSerThrAspCysGluAspSerAspMetLeuHisThrProGlyAlaAla
                                                                                                                                                                                                                                                                     CAGGCCGTGAAGATCCTCGCCGTCAGAGACCTCATTTGGGTCCCCAGGCGCGGTGGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                  GTTATCGTCATTGGCCTGGAGGATTCTGAAGCCCCAGCGGCGCCGAGTCATTGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                  ValileValileGlyLeuGluLysAspSerGlyAlaGlnArgGlyArgValileAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTAAAAGCCCGAGAGCTGACTCCGCATGGGGTGCTGGTGGATGCTGCCGTGGTGGCAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCTGGGGCGCCAGGGAGTTCGACATTTTCTACCAGTCCTACGAGGAGCTGGGCCGGCTG
                  CCTGAGGGGGACTCCATCGCGGACGTGAGCATCATGTACAGTGAGGAGCTGGGCACGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACACTGTTGTGTGCACCTTTGAAAATGAAAACACAGAGTGGTGCCTGGCCGTCTGGAGG
                                                                              ATCCTGATCCACGGAATCACTCACTGACTACTGCTCCATGTCCTCCTGCTACTCCTCATCC
                                                                                                                                           CCACCCCCCAGGCTGCCAGGTCCCCCTCAAGCCTCCCCAGCTCCCCAGCAAGTTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STEROLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-836-392-8_COPY_22_2205 (1-2184) x US-10-132-382-2 (1-2013)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2013
687
0
1
139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STEROIDS AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unication No. US20030045699A1
ENERAL INFORMATION:
ENERAL INFORMATION:
ENERAL INFORMATION:
ENERAL INFORMATION:
ENERAN ENERGY
IIILE OF INVENTION: MEMBRANE RECEPTORS FOR STETLINE REPRENDENCE: SCH-1811
CURRENT APPLICATION NUMBER: US/10/132,382
CURRENT FILING DATE: 2002-04-26
NUMBER OF SEQ ID NOS: 26
SOFTWARE: Patentin ver. 2.1
LENGTH: 2013
TYPE: PAT
ORGANISM: HOMO sapiens
10-132-382-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGCTTGCACTCGCAAGAGA 2181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.98e-215
3574.50
94.50%
94.50%
88.09%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cent Similarity:
t Local Similarity:
ry Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gnment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JLT 3
10-132-382-2
                                             1781
                                                                                                                                                                                                                                                                                                  1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2161
                                                                                                           1801
                                                                                                                                                                                                                                      1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1921
                  1561
                                                                              1621
                                                                                                                                           1681
                                                                                                                                                                       1821
                                                                                                                                                                                                       1741
                                                                                                                                                                                                                                                                     1801
                                                                                                                                                                                                                                                                                                                                  1861
                                                                                                                                                                                                                                                                                                                                                                  1881
                                                                                                                                                                                                                                                                                                                                                                                                1921
                                                                                                                                                                                                                                                                                                                                                                                                                              1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . No. :
```

ß

Page

```
1387 GluAsnAlaArgAspSerSerPheIleProLeuGlyHisMetLeuThrGlnLysIleAla 1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1367 HisProLeuCysPheAlaLeuGluLeuAlaProLeuSerSerLeuAsnThrValLeuSer 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 TACCAGATCGCCTCGGGCCTGGCCTACCTGCACAAAAAACATCATCTTCTGTGACCTG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1327 MetLeuArgHisLeuArgAlaThrAspAlaMetLysAsnPheSerGluPheArgGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 CACCCCCTCTGCTTCGCCCTGGAGCTCGCGCCGCTCAGCAGCCTCAACACCGTGCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1407 TyrGln1leAlaSerGlyLeuAlaTyrLeuHisLysLysAsnIleIlePheCysAspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1487 PheSerTyrGlyMetValLeuTyrGluLeuLeuSerGlyGlnArgProAlaLeuGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 ATGCTGAGGCACCTGCGGGCCACCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GCCAGCATGCTGCACGCGCTGCACCCCTGCATCGTGGCGCTCATCGCCATCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 GAGAACGCCAGAGATTCTTCTTTATACCCCTGGGACACATGCTCACCCAAAAATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301 AAGTCGGACAACATTCTGGTGTGGTCCCTTGACGTCAAGGAGCACATCAACATCAAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361 TCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGCGCGCCCTAGGCGTGGAGGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTGGCTACCAGGCCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGAAGGTAGATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACTGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541 CACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGAGGCATCCGCCCGGTTCTGGGGCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACTAAGCCA
                                  RESULT 4
US-10-132-382-8
US-10-132-382-8
US-10-132-382-8

| Sequence 8, Application US/10132382
| Publication No. US20030045699A1
| GENERAL INFORMATION:
| APPLICANT: WEISS, BERTRAM
| TITLE OF INVENTION: MEMBRANE RECEPTORS FOR STEROIDS AND STEROLS
| FILE REFERENCE: SCI-1811
| CURRENT APPLICATION NUMBER: US/10/132,382
| NUMBER OF SEQ ID NOS: 26
| SOFTWARE: Patentin Ver. 2.1
| SEQ ID NO 8: 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-836-392-8_COPY_22_2205 (1-2184) x US-10-132-382-8 (1-2014)
                                                                                                                                                                                                                                                                                                                                                                  2014
687
0
1
39
                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
     2007 GluAlaCysThrArgLysArg 2013
                                                                                                                                                                                                                                                                                                                                                                    4.98e-215
3574.50
94.50%
94.50%
88.09%
                                                                                                                                                                                                                                                                                TYPE: PRT
CORGANISM: Homo sapiens
US-10-132-382-8
                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                 2014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTGAGGGGGACTCCATCGCGGACGTGAGCATCATGTACAGTGAGGAGCTGGGCACGCGG 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2100
TACCTGTGCTCACACACACCAACAGGTCCAAGTTCAGCATGCGCGGATGAAGACGCACGG 1200
                                                                                         1686
                                                                                                                                          1320
                                                                                                                                                                                                                SerAsnGlyProGlyLeuLeuVallleAspCysAlaSerLeuGlulleCysArgArgLeu 1726
                                                                                                                                                                                                                                                               GAGCCCTACATGGCCCCCTCCATGGTTACGTCAGTCGTGTGCAGCTCTGAGGGCAGAGGG 1380
                                                                                                                                                                                                                                                                                                1746
                                                                                                                                                                                                                                                                                                                               GAGGAGGTCGTCTGGTGCCTGGATGACAACGCCAACTCCTTGGTGATGTACACTCCACC 1440
                                                                                                                                                                                                                                                                                                                                                     ACCTACCAGCTGTGTGCCCGGTACTTCTGCGGGGTCCCCCAGCCCCCTCAGGGACATGTTT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                            ThriyrdinLeuCysAlaArgTyrPheCysGlyValProSerProLeuArgAspMetPhe 1786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProValArgProLeuAspThrGluProProAlaAlaSerHisThrAlaAsnProLysVal 1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCCTGATCCACCAGGAATCACTCACTGACTACTGCTCCATGTCCTCCTACTCCTCATCC 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProProArgGlnAlaAlaArgSerProSerSerLeuProSerSerProAlaSerSerSer 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGTGCCTTTCTCCACCGACTGCGAGGACTCAGACATGCTACATACGCCCGGGTGCTGCC 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGGCCGTGAAGATCCTCGCCGTCAGAGACCTCATTTGGGTCCCCAGGCGCGGTGGAGAT 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlnalavalLysileLeualavalArgAspLeulleTrpValProArgArgGlyGlyAsp 1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GITATCGTCATTGGCCTGGAGGATTCTGAAGCCCAGCGGGGCCGAGTCATTGCCGTC 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TIAAAAGCCCGAGAGCTGACTCCGCATGGGGTGCTGGTGGATGCTGCCGTGGTGGCAAAG 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuLysAlaArgGluLeuThrProHisGlyValLeuValAspAlaAlaValAlalaLys 1966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspThrValValCysThrPheGluAsnGluAsnThrGluTrpCysLeuAlaValTrpArg 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrLeuCysSerHisThrAlaAsnArgSerLysPheSerIleAlaAspGluAspAlaArg
                                                                                                                        CAGAACCCCTACCCAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCTGAGGTCTGGTAC
                                                                                                                                                                                            AGCAATGGGCCCGCGCCTCCTTGTCATCGACTGTGCCTCCCTGGAGATCTGCAGGCGGCTG
                                                                                                                                                                                                                                                                                     GluProTyrMetAlaProSerMetValThrSerValValCysSerSerGluGlyArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValileValileGlyLeuGluLygAspSerGlyAlaGlnArgGlyArgValileAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACACTGTTGTGTGCACCTTTGAAAATGAAAACACAGAGTGGTGCCTGGCCGTCTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCTGGGGCGCCAGGGAGTTCGACATTTTCTACCAGTCCTACGAGGAGCTGGGCCCGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGCTTGCACTCGCAAGAGA 2181
                     1647
                                                      1141
                                                                                       1667
                                                                                                                        1201
                                                                                                                                                           1687
                                                                                                                                                                                          1261
                                                                                                                                                                                                                             1707
                                                                                                                                                                                                                                                               1321
                                                                                                                                                                                                                                                                                                1727
                                                                                                                                                                                                                                                                                                                                   1381
                                                                                                                                                                                                                                                                                                                                                                    1747
                                                                                                                                                                                                                                                                                                                                                                                                     1441
                                                                                                                                                                                                                                                                                                                                                                                                                                      1767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2161
```

120

9

180

240

1426

360

420

480

1506

900

099

QY 1741 AGTGTGCCTTTCTCCACCGACTGCGAGGACTCAGACATGCTACATACGCCCGGTGCTGCC 1800 Db 1868 SerValProPheSerThrAspCysGluAspSerAspMetLeuHisThrFrGJyAlaAla 1887 QY 1801 TCCGACAGGCATGACCTGACCTGACCCCATGGACGTTCAGCCAGGACTG 1860 Db 1888 SerAspArgSerGluHisAspLeuThrFrOMEtAspGlyGluThrPheSerGlnHisLeu 1907 QY 1861 CAGGCGTGAAGATCCTCACGCATGGACCTCAGAGAT 1920	Db 1908 GinAlavaliyalledualavalayaspleuiletrövalbroargArgGlyGlyAsp 1927 Qy 1921 GTTALGGCCAGGAGAATTCTGAAGCCCAGGGGGGGGGGTCATTGCCGTC 1980 Db 1928 ValileValileGlyLeuGluLySAspSerGlyAlaGlnArgGlyArgValileAlaVal 1947 Qy 1981 TTAAAAGCCCGAAGGACTGACTCGCATGGGGTGCTGGTGGTGGAAAG 2040 Db 1948 LeuLvAllaArgGluLeuThrProfileGlyLeuGluCalavalabaValvalAlaLyS 1967	2041 1968 2101 1988	Oy 2161 GAGGCTTGCAAAGAA 2181 Db 2008 GluAlaCysThrArgLysArg 2014 RESULT 5 US-10-132-382-4 ; Publication No. US20030045699A1	; GENERAL INFORMATION: ; APPLICANT; WEISS, BERTRAM ; TITLE OF INVENTION: MEMBRANE RECEPTORS FOR STEROIDS AND STEROLS ; FILE REFERENCE: SCH-1811 ; CURRENT APPLICATION VNDER: US/10/132,382 ; CURRENT FILING DATE: 2002-04-26 ; NUMBER OF SEQ ID NOS: 26 ; SOFTWARE: PATENTIN Ver. 2.1		13574.50 Matches: 68 14.50% Conservative: 0 arity: 94.50% Mismarches: 1 15. Indels: 35 Gaps: 1	US-09-836-392-8_COPY_22_2205 (1-2184) x US-10-132-382-4 (1-2040) OY 1 ATGCTGAGGACCTGCGGGCCCCCGATGCCATGAAGAACTTCTCCGACTTCCGGCAGGAG 60	13
GAGAAGCGACCGCTGTCGGTGGTGAGCCAGATGAAGGACCCGACTTT [1		GCCGATGCGCTTGTGGCTGTGTTTCCCGTGCTGCGGGCACCCCAAAGGACAGCTGCTCC	1201 CAGAACCCCTACCCGAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCTGAGGTCTGGTAC 1260	GAGCCCTACATGGCCCCCTCCATGGTTACGTCAGTCGTGTGCAGCTCTGAGGC	CATGITI pMetPhe	ProvalArgProLeuhspThrGluProProAlaAlaSerH18ThrAlaAsnProLysVal 1 CCTGAGGGGGACTCCATCGCGGACGTCAGCATCATGTACAGTGAGGAGCTGGGCACGCAG 1 CTGAGGGGGACTCCATCGCGGACGTCAGCATCATGTACAGTGAGGAGCTGGGCACGCAG 1 CTGAGGGGACTCCATCAGTAGAAGAACATCATGTACAGTAGGAGCTGGGCACGCAG 1 ProGluGlyAspSerIleAlaAspValSerIleMetTyrSerGluGluLeuGlyThrGln 1	1621 ATCCTGATCCACCAGGAATCACTGACTGCTCCATGTCCTCCTCTCTCT

4 SerAsnGlyProGlyLeuLeuVallleAspCysAlaSerLeuGluIleCysArgArgLeu 175	Oy 1321 GAGCCTACATGGCCCCTCCATGGTTACGTCGTGTCCAGGTCTGAGGGGCTAGAGGG 1380	Qy 1381 GAGGAGGTCGTCGTGCTGGATGACAAGGCCAACTCCTTGGTGATGTACCACCT 1440 Db 1774 GluGluValValTrpCysLeuAspAspLysAlaAsnSerLeuValMetTyrHisSerThr 1793	Oy 1441 ACCTACCAGCTGTGCCGGTACTTCTGCGGGGTCCCCCAGCCCCTCAGGACATGTTT 1500	Qy 1501 CCCGTGCGCCCTTGGACCCCCGGCAGCCAGCCACGCCAC	162	Oy 1621 ATCCTGATCCACAGGAATCACTCACTGACTACTCCTCATGTCCTCATTCCTCATCC 1680	QY 1681 CCACCCGCCAGGCTCCCCCTCAAGCCTCCCCAGCAAGTTCTTCC 1740	QY 1741 AGTGTGCCTTTCTCCACGACGACTGCAGGACTCAGACATGCTACATACGCCGGGTGCTGCC 1800 DD 1894 SerValProPheSerThrAspCysGluAspSerAspMetLeuHisThrProGlyAlaAla 1913	Oy 1801 TCCGACAGGTCTGAGCATGACCTGACCCCCATGGACGAGGAGACCTTCAGCCAGGCACCTG 1860	Oy 1861 CAGGCGGTGAAGATCCTCGCGTCAGAGACCTCATTTGGGTCCCCAGGGGGGGG	Oy 1921 GTTATCGTCATTGGCCTGGAGAAGGATTCTGAAGCCCAGCCGGGCCGAGTCATTGCCGTC 1980	Qy 1981 TTAAAAGCCCGAGAGCTGACTGCCCATGGGGTGCTGGTGGATGCTGCGTGGCAAAG 2040 Db 1974 LeulysAlaArgGluLeuThrProHisGlyValLeuValAspAlaAlaValValAlaLys 1993	Qy 2041 GACACTGTTGTGTGCACCTTTGAAAATGAAAACACAGAGGTGCTGGCCGTCTGGAGG 2100	Oy 2101 GGCTGGGGCCGGGGAGTTCGACATTTCTACCAGTCCTACGAGGAGCTGGGCCGGCTG 2160	Oy 2161 GAGGCTTGCACTCGCAAGAGA 2181 Db 2034 GlualaCysThrArgLysArg 2040	RESULT 6 US-10-094-749-1689 ; Sequence 1689, Application US/10094749 ; Publication No. US20030219741A1	GENERAL INFORMATION TAKAO ; APPLICANT: ISOGAL ; APPLICANT: SUGIYAMA, TOMOYASU ; APPLICANT: FERUI ; APPLICANT: WAKWATSI, AI	; APPLICANT: SATO, HIROYUKI ; APPLICANT: ISHII, SHIZUKO
	241 TACCAGATCGCCTCGGCCTGCCTCCCTGCAGAAAAACATCATCTTCTGTGACCTG 300 	AAGTGGACAACATTCTGGTGTGTGCCTTGACGTCAAGAGCACATCAACATAAGTA 36		CCTGGCTACCAGGCCCCAGAGATCAGGCTTGTATATGATGAGAAGGTAGATATG	TTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACGGCCCTGCACTGGGCCAC 	541 CACCAGCTCCAGATTGCCAACAAGGCTGTCCAAGGGCATCCGCCCGGTTCTGGGGCACCCG 600	GAGGAAGTGCAGTTCCGGCGACTGCAGGCGTCATGATGGAGTGCTGGGACACTAAGCCA GAGGAAGTGCAGTTCCGGCGACTGCAGGCGTCATGATGGAGTGCTGGGACACTAAGCCA GAGGAAGTGGAAGTACACGAGGTAAAAAAAAAA	GAGAAGCGACCGCTGGCCTGTCGGTGGTGAGCCAGATGAAGGACCCGACTTTTGCCACC. 7	TICATGIATEGETOLEGATABLEUSELVAIVALSEIGLIMECLYSASPFIOINFII TICATGIATATGAACTGGTGGGAAGCAGACACGCTTTTTTCTATTCCAGGG	TACACCGTGGTTTTTGGGATGGAAAAGAGAGTCCAGGAACTACACGTGGTGAACACA 8	GAGAAGGCCTCATGCALLAGGGGGGGGGGGGGGGGGGGGG	CTCCAGGTCCAGGATCCCTGTGGACAGCCACGAGGACCAGAAAATCTACATCTACACG 9	CTCAAGGGCATGTGCCCCTTAAACACCCCAACAGGCCTTGGATACTCCAGCTGTCGTC	ACCIGCTICTIGGCCGIGCCTGTIATAAAAAGAATICCTACTGGTCTIAGCGGGCCTC 1	GCGATGGGCTTGTGGCTGTTTCCCGTGGTGGGGGCCCCCAAGACAGCTGCTC 1	1141 TACCTGTGACACACAGCCAAGGTCCAAGTTCAGCATGGGGATGAAGACGCAGGG 1200 	1201 CAGAACCCCTACCCAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCTGAGGTCTGGTAC 1260 	1261 AGCAATGGGCCGGGCCTCCTTGTCATCGACTGTGCCTCCCTGGAGATCTGCAGGCGGCTG 1320

ω

```
1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1917
                                                                                                                                                                                                                                                                                                                                                                                                      1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1618 GAGATCCTGATCCACCAGGAATCACTCACTGACTACTGCTCCATGTCCTCCTACTCCTCA 1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  receasedesagerageragareceereaageereceaagereceaagerage 1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATGTTATCGTCATTGGCCTGGAGAATTCTGAAGCCCAGCGGGCCGAAGTCATTGCC 1977
                                                                                                                                      1197
                                                                                                                                                                                                       1257
                                                                                                                                                                                                                                                                      1317
                                                                                                                                                                                                                                                                                                                                   1318 CTGGAGCCCTACATGGCCCCTCCATGGTTACGTCGTGGTGGTGCAGCTCTGAGGGCAGA 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1438 ACCACCTACCAGCTGTGTGCCCGGTACTTCTGCGGGGTCCCCCAGCCCCCTCAGGGACATG 1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITCCCGTGCGCCCTTGGACACGGGAACCCCCGGCAGCCACACACGCCAAACCCAAAG 1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1558 GIGCCICAGGGGGACICCAICGCGGACGIGAGCAICAIGIACAGIGAGGAGCIGGGCACG 1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                      240
                                                                                                                                                                                                                                     260
                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       280
                                                                                                                                                                                                                                                                                                                                                                                                                                  301 GlydlugluvalvaltrpCysLeuAspAspLysAlaAsnSerLeuValMetTyrHisSer 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PheProvalArgProLeuAspThrGluProProAlaAlaSerHisThrAlaAsnProLys 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerSerValProPheSerThrAspCysGluAspSerAspMetLeuHisThrProGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gecreceacaggrergageargagecreargacecargagegegegagaecrreageage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCAGTGTGCCTTTCTCCACCGACTGCGAGGACTCAGACATGCTACATACGCCCCGGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCAGGCCGTGAAGATCCTCGCCGTCAGAGACCTCATTTGGGTCCCCCAGGCGCGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCGCCGATGGGCTTGTGGCTGTGTTTCCCGTGGTGCGGGGCACCCCAAAGGACAGCTGC
                                                                                                                                    1138 TCCTACCTGTGCTCACACACACCAACAGGTCCAAGTTCAGCATCGCGGATGAAGACGCA
                                                                                                                                                           241 ArgGlnAsnProTyrProVallySAlaMetGluValValAsnSerGlySerGluValTrp
                                                                                                                                                                                                                                                                    1258 TACAGCAATGGGCCGGGCCTCCTTGTCATCGACTGTGCCTCCCTGGAGATCTGCAGGCGG
                                                                                                                                                                                                                                                                                       261 TyrSerAsnGlyProGlyLeuLeuVallleAspCysAlaSerLeuGluIleCysArgArg
                                                                                                                                                                                                                                                                                                                                                      281 LeuGluProTyrMetAlaProSeIMetValThrSerValValCysSerSerGluGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                      1378 GGGGAGGTCGTCTGGTGCCTGGATGACAAGGCCAACTCCTTGGTGATGTACCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      401 SerProProArgGlnAlaAlaArgSerProSerSerLeuProSerSerProAlaSerSer
                          1198 CGGCAGARCCCCTACCCAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCTGAGGTCTGG
        GTCACCTGCTTCTTGGCCGTGCCTGTTATTAAAAGAATTCCTACCTGGTCTTAGCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 7
US-10-143-133-2
Sequence 2, Application US/10143133
; Publication No. US20020197658A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCT 1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1498.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           461
             1018
                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठ
                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                                                                                                        8 6
                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                            8
                                                                                                     셤
                                                                                                                                          ò
                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          958 ACCCTCAAGGGCATGTGCCCCTTAAACACCCCAACAGGCCTTGGATACTCCAGCTGTC 1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 ThrGluLysGlyLeuMetGluValGlnArgMetCysCysProGlyMetLysValSerCys 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               141 GINLeuGlnValGlnArgSerLeuTrpThralaThrGluAspGlnLysIleTyrIleTyr 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCTICATGIATGAACTGIGCTGTGGGAAGCAGACAGCCTTCTTCTCATCCCAGGGCCAG 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGTACACCGTGGTGTTTTGGGATGGAAAAGAGGAGTCCAGGAACTACACGGTGGTGAAC 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACAGAGAAGGGCCTCATGGAGGTGCAGGATGTGCTGCCTGGGATGAAGGTGAGCTGC 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGCTCCAGGTCCAGAGATCCCTGTGGACAGCCACCGAGGACCAGAAAATCTACATCTAC 957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGAGAAGCGACCGCTGGCCCTGTCGGTGAGCCAGATGAAGGACCCGACTTTTGCC 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HisHisGlnLeughnIleAlaLysLeuSerLysGlylleArgProValLeuGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 ProGluLysArgProLeuAlaLeuSerValValSerGlmMetLysAspProThrPheAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGITCICCIATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCGGTTCTGGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGGAGGAAGTGCAGTTCCGGCGAGCGCGCTCATGATGGAGTGCTGGGACACTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-836-392-8_COPY_22_2205 (1-2184) x US-10-094-749-1689 (1-501)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            501
0 0 0 1
0 0 0 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                        PPLICANT: HOLY, XUA
PPLICANT: HOLY, XUA
PPLICANT: OTSUKA, KAORU
PPLICANT: NAGAI, KEIICHI
PPLICANT: TAMEGHIKA, ICHIRC
PPLICANT: TAMEGHIKA, ICHIRC
PPLICANT: SEKI, NACHIKC
PPLICANT: SEKI, NACHIKAM, TSUTOMU
PPLICANT: SEKI, NACHIKO
PPLICANT: NAGAHARI, KENJI
PPLICANT: NAGAHARI, KENJI
PPLICANT: NAGHARI, KENJI
PPLICANT: NAGHARI, KENJI
PPLICANT: NAGHARI, KENJI
PPLICANT: NAGHARI, KENJI
PPLICANT: NAGHARI, KENJI
PPLICANT: NAGHARI, KENJI
PPLICANT: NAGHARI, KENJI
PPLICANT: NAGHARI, KENJI
PPLICANT: NAGHARI, KENJI
PPLICANT: NAGHARI, KENJI
PPLICANT: NAGHARI, KENJI
PPLICANT: NAGHARI, FULL-LENGTH CDNA
ILLE REFRERCE: 08435/0160
URRENT FILING DATE: 2002-03-12
PRIOR PILING DATE: 2002-01-24
PRIOR FILING DATE: 2002-01-24
PRIOR FILING DATE: 2002-01-24
PRIOR FILING DATE: 2002-01-12
PRIOR FILING DATE: 2002-01-12
PRIOR FILING DATE: 2002-01-12
PRIOR FILING DATE: 2002-01-12
PRIOR FILING DATE: 2001-09-14
UNMBER OF SEQ ID NOS: 3381
30FTWARE: PATENTIN VET. 2.1
CRGANICH: HOMO SADIENS
1TYPE: PRT
CRGANICM: HOMO SADIENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.05e-155
2623.00
99.80%
99.80%
YAMAMOTO, JUN-ICHI
ISONO, YUUKO
HIO, YURI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cont Similarity:
   Local Similarity:
   y Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ynment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                898
```

1. No.:

G

475

455 854 495

949

```
950 ACATCTACACCCTCAAGGGCATGTGCCCCTTAAACACACCCCCAACAGGCCTTGGATACTC 1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----TCATCG 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1289 ACTGTGCCTCCCTGGAGATCTGCAGGCGGCTGGAGCCCTACATGGCCCCTCCATGGTA 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1055 ATTCCTACCTGG------TCTTAGCGGGCCTCGCCGATGGGCTTGTGGCTGTGTTTC 1105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1163 ACAGGTCCAAGTTCAGCATCGCGGATGAAGACGCACGGCAGAACCCCTACCCAGTGAAGG 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ::: ||||||||||||||||||-----issheuledlaseten 655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------GAAGTGCAGAGGATGTGCTGCCC 878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             567 GlyProSerSerProLysProGlyGluAlaGlnAsnGlyArgArgArgSerArgMetAsp 586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           587 GlualathrirpTyrLeuAspSerAspAspSerSerProLeuGlySerProSerThrPro 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             656 GlyLeuGlyArgAspLeuGlnProProGlyGlyProGlyArgGluArgGlyGluSerPro 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrThrProProThrProAlaPro---CysProThrGluProProPro---Ser 693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              694 ProLeulleCysPheSerLeuLysThrProAspSerProProThrProAlaProLeuLeu 713
---ProAspPheAlaSerIleLeuGlnGln 375
                                                                                                LeuGluAlaLeuGluAlaGlnValLeuArgGluMetProArgAspSerPheHisSerMet 395
                                                                                                                                                                                                                                                                                                GluLeuLeuSerArgGluGluGluLeuThrArgAlaAlaArgGluGlnArgSerGlnAla 435
                                                                                                                                                                               GluGlnLeuArgArgGluHisLeuLeuAlaGlnTrpGluLeuGluValPheGluArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GluLeuThrLeuLeuLeuGlnGlnValAspArgĠiuArgPróHisValArgArgArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyThrPheLysArgSerLysLeuArgAlaArgAspGlyGlyGluArgIleSerMetPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            496 LeudspPheLysHisArgIleThrValGlnAlaSerProGlyLeuAspArgArgArgAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -------CCAGCTCCAGATCCCTGT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             516 ValPheGluValGlyProGlyAspSerProThrPheProArgPheArgAlaIleGlnLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -------GGACAGACAG------------CCACCGAGGACCAGAAATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        536 GluProAlaGluProGlyGlnAlaTrpGlyArgGlnSerProArgArgLeuGluAspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerAsnGlyGluArgArgAlaCys-------TrpAlaTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1010 CAGCTGTCGTCGCTGCTTCTTGGCCGTGCCTGTTATTAAAAAGA---------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProblateussidiyasıProProArg------ProSerLeuGluProGluGluPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1223 CCATGGAGGTGGTCAACAGCGGCTCTGAGGTCTGGTACAGCAATGGGCCGGGCCTCCTTG
                                                    CTGTG-CTGTGGGAAGCAGACAGCCTTCTTCTCATCCCAGGGCCAGGAGTACACCGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----BGAGGGCCTCAT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  879 TGGGATGAAGGTGAGCTG-----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTCAGTCGTGTGCAGCTCTGAGGGCAGAG-----
                                                                                                                                                                                                                                                                                                                                                  ---GAACTACACGGTGGTGAACAC----
                                                                                                                                                  GTTTTGGGATGGAAAAGAGGAGTCCAG-
                                                                                                376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  607
                                                                                                                                                  792
                                                                                                                                                                                                 396
                                                                                                                                                                                                                                                                                                  416
                                                                                                                                                                                                                                                                                                                                                                                                   436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  456
     367
                                                    733
                                                                                                                                                                                                                                                      818
                                                                                                                                                                                                                                                                                                                                                    819
                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 855
                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \overset{\sim}{o}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                    ठे
                                                                                           임
                                                                                                                                                à
                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     235 ValProValIleHisArgAspLeuLysSerAsnAsnlleLeuLeuLeuGlnProlleGlu 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      388 TICCAIGAGGGCGCCCIAGGCGIGGAGGGCACICCIGGCIACCAGGCCCCAGAGAICAGG 447.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ::: |||||||::: HisLysThrThrGlnMetSerAlaAlaGlyThrTyrAlaTrpMetAlaProGluVallle 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |||||||:::|||:::
|LeuLeuThrGlyGluValProTyrArgGlyIleAspCysLeuAlaValAlaTyrGlyVal 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -------PheAlaGlnLeuMetAlaAspCysTrpAlaGlnAspProHisArgArg--- 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         673 CIGGCCCTGTCGGTGGTGAGCCCAGATGAAGGACCCCGACTTTTGCCACCTTCATGTATGAA 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         112 ATCAGCATCCACCCG----CTCTGGCTTCGCCCTGGAGCTCGCGCCCGCTCAGCAGCCTC 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         166 AACACCGTGCTGTCCGAGAACGCCAGAGATTCTTCCTTTATACCCCTGGGACACATGCTC 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Val --- AsnTrpAlaValdinileAlaArgGlyMetHisTyrLeuHisCysGluAlaLeu 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTGACGTCAAGGAGCACATCAACATCAAGCTATCTGACTACGGGGATTTCGAGGCAGTCA 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCGCATTGTATATGATGAGGTAGATATGTTCTCCTATGGAATGGTGCTCTACGAG 507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LysAlaSerThrPheSerLysGlySerAspValTrpSerPheGlyValLeuLeuTrpGlu 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----AAGAAGCIGICCAAGGGCAICCGCCCGGIICIGGGGCAGCGAGGAAGIGCAG 612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TICCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACTAAGCCAGAGAAAGCGACCG 672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGGCAGGAGGCCAGCATGCTGCACGCGCTGCACCCCCTGCATCGTGGCGCTCATCGGC 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ---AACATCATCTTCTGTGACCTGAAGTCGGACAACATTCTGGTGTGG------TCC 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AlaValAsnLysLeuThrLeuProIleProSerThrCysProGluPro------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Trectercaceacaccecerceaccaccaccaccaccaccaccaccacarrece-----
                                                                           Its Use
                    PPLICANT: Yoganathan, Thillainathan
PPLICANT: Delaney, Allen
TILE REPERBUCE: Cancer Associated Protein Kinase and Its
TILE REPERBUCE: TINE-023
URRENT APPLICATION NUMBER: US/10/143,133
URRENT FILING DATE: 2002-05-09
WRICE APPLICATION NUMBER: 60/290,555
RIOR PILING DATE: 2001-05-10
UMBER OF SEQ ID NOS: 4
UNTARE: FastSEQ for Windows Version 4.0
UPTWARE: PastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9-836-392-8_COPY_22_2205 (1-2184) x US-10-143-133-2 (1-847)
                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                        5.56e-13
337.50
34.09%
24.62%
8.32%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ent Similarity:
Local Similarity:
  NERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                        nument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          559
```

```
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1646 CIGACIACIGCICCAIGICCICCIACICCICAICCCCACCCCCCCAGGCIGCCAGGICCC 1705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1766 AGGACTCAGACATGCTACATACGCCCGGTGCTGCCTCCGACAGGTCTGAGCATGACCTGA 1825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1826 CCCCCATGGACGGGGAGCCT---TCAGCCAGCACCTGCAGGCCGTGAAGATCCTCGCCG 1882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTCAAGCCTCCCCAGCTCCCAAGTTCTTCCAGTGTGCCTTTCTCCACCGACTGCG 1765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRICE OF INVENTION: NOVEL HUMAN PROTEINS, POLYNUCLEOTIDES ENCODING THEM ITTLE OF INVENTION: NOVEL HUMAN PROTEINS, POLYNUCLEOTIDES ENCODING THEM ITTLE OF INVENTION: AND METHODS

FILE OF INVENTION: AND METHODS

FILE OF INVENTION: AND METHODS

CURRENT APPLICATION NUMBER: US/10/115,482

CURRENT PILING DATE: 2002-04-03

PRIOR FILING DATE: 2001-04-03

PRIOR FILING DATE: 2001-04-03

PRIOR FILING DATE: 2001-04-05

PRIOR PRIOR APPLICATION NUMBER: 60/281,906

PRIOR PRIOR APPLICATION NUMBER: 60/281,906

PRIOR FILING DATE: 2001-04-05

PRIOR FILING DATE: 2001-04-05

PRIOR FILING DATE: 2001-04-10

PRIOR FILING DATE: 2001-04-12

PRIOR FILING DATE: 2001-04-12

PRIOR FILING DATE: 2001-04-12

PRIOR FILING DATE: 2001-04-12

PRIOR FILING DATE: 2001-04-12

PRIOR FILING DATE: 2001-04-12

PRIOR FILING DATE: 2001-04-12

PRIOR FILING DATE: 2001-04-24

PRIOR APPLICATION NUMBER: 60/285,990

PRIOR APPLICATION NUMBER: 60/286,990

PRIOR APPLICATION NUMBER: 60/286,090

PRIOR APPLICATION NUMBER: 60/286,090

PRIOR APPLICATION NUMBER: 60/286,090

PRIOR APPLICATION NUMBER: 60/286,090

PRIOR APPLICATION NUMBER: 60/286,090

PRIOR APPLICATION NUMBER: 60/286,090

PRIOR APPLICATION NUMBER: 60/286,090

PRIOR APPLICATION NUMBER: 60/286,069

PRIOR PRILING DATE: 2001-04-24

PRIOR PILING DATE: 2001-04-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGAGCATCATGTACAGTGAGGAGCTGGGCACGCAGATCCTGATCCACCAGGAATCACTCA 1645
------GGGAGGAGGTCGTCTGGTGCCTGGATGACAAGGCCAACT 1417
                                                                                                                                                                                        CCTTGGTGATGTACCACTCCACCACCTACCAGCTGTGCCCCGGTACTTCTGCGGGGTCC 1477
                                                                                                                                                                                                                                                                                                                                                                                     1478 CCAGCCCCCCCCCAGGGACATGTTCCCGTGCGGCCCTTGGACACGGAACCCCCGGCAGCCA 1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ------GCCACACGCCAACCCAAAGGTGCCTGAGGGGGACTCCATCGCGGACG 1585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ------GlnProAlaProArgArgAla---ProTrpThrLeuPheProAspSerAsp 810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -------ProArgSerPro 759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           760 ProLeuGlyLeuIleSerArgPro------ArgProSerProLeuArgSer 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ---------Ser 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781 PheValSerAla------GlyProArgProSerProLeuProSerPro 794
                                                                  |||:::|||||:::
714 LeuAspLeuGlylleProValGlyGlnArgSerAlaLysSerProArgArgGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1883 TCAGAGACCTCATTTGGGTCCCCAGGCGCGGGG 1916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          830 adinThrLysAspMetGlyAladinAlaProTrp 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProGlyThrProGlyThr-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             equence 48, Application US/10115482 iblication No. US20030212257A1 ENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0-115-482-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1706
                                                                                                                                                                                                       1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               810
```

```
CAGGCCCCAGAGATC---AGGCCTCGCATTGTATGATGAGGAAGGTAGATATGTTCTCC 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       487 INTEGRATECTETACGAGTTGCTG---TCAGGACAGCGCCCTGCACTGGGC----- 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70 crecacecerrecaceacecerecarecresecerresecaresecareacearecacecere 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190 AGAGATTCTTCCTTTATACCCCTGGGACACATGCTCACCAAAAAATAGCCTACCAGATC 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           250 GCCTCGGGCCTGGCCTGCACACAAAAAACATCATCTTCTGTGACCTGAAGTCGGAC 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           310 AACATTCTGGTGGTGCCTTGACGTCAAGGAGCACATCAACATCAAGGTATCTGACTAC 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        370 GGGATTITCGAGGCAGICALICCAIGAGGCGCCCTAGGCGIGGAGGCACICCIGGCIAC 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28 GCCATGAAGAACTTCTCCGAG------TTCCGGCAGGAGGCCAGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-836-392-8_COPY_22_2205 (1-2184) x US-10-115-482-48 (1-915)
                                                                                                                                                                                                                                                                                                                                                                                                                                              915
106
76
159
53
                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps:
PRICR APPLICATION NUMBER: 60/287,213
PRICR FILING DATE: 2001-04-27
PRICR PILING DATE: 2001-08-27
PRICR PILING DATE: 2001-05-02
PRICR FILING DATE: 2001-05-02
PRICR APPLICATION NUMBER: 60/291,134
PRICR APPLICATION NUMBER: 60/291,725
PRICR PILING DATE: 2001-04-06
PRICR PILING DATE: 2001-04-06
PRICR FILING DATE: 2001-04-06
PRICR FILING DATE: 2001-05-17
PRICR PILING DATE: 2001-05-17
PRICR PILING DATE: 2001-05-17
PRICR APPLICATION NUMBER: 60/294,771
PRICR APPLICATION NUMBER: 60/294,771
PRICR APPLICATION NUMBER: 60/2965
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
                                                                                                                                                                                                                                                                                                                                                                                                                                            7.49e-13
335.50
46.19%
26.90%
                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                             US-10-115-482-48
                                                                                                                                                                                                                                                                                                                                      LENGIH: 915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         538
                                                                                                                                                                                                                                                                                                                                                                                                                                                      . No. .
```

```
130 TGCTTCGCCCTGGAGCTCGCGCCGCTCAGCAGCCTCAACACCGTGCTGTCCGAGAACGCC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190 AGAGATTCTTCCTTTATACCCCTGGGACACATGCTCACCAAAAAATAGCCTACCAGATC 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               358 AlaSer------LeuThrArgThrLeuGlnHisArgIleAlaLeuHisVal 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      310 AACATTCTGGTGTGGTCCCTTGACGTCAAGGAGCACATCAACATCAAGCTATCTGACTAC 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              370 GGGATTTCGAGGCAGTCATTCCATGAGGCGCCCTAGGCGTGGAGGGCACTCCTGGCTAC 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |||||||:::::
413 GlylleAlaGlnTyrCysCysArgMetGlylleLysThrSerGluGlyThrProGlyPhe 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         586 GITCTGGGGCAGCCGGAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGC 645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70 CTGCACGCGCTGCAGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATCCACCCGCTC 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              250 GCCTCGGGCCTGGCTACCTGCACAAAAAAAACATCATCTTCTGTGACCTGAAGTCGGAC 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          373 AlaAspGlyLeuArgTyrLeuHisSerAlaMetileIleTyrArgAspLeuLysProHis 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       430 CAGGCCCCAGAGAIC---AGGCCTCGCATIGTAIATGAIGAGAAGGTAGAIAIGTICTCC 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ------CACCACCAGCTCCAGATTGCCAAGAGCTGTCCAAGGGCATCCGCCCG 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TATGGAATGGTGCTCTACGAGTTGCTG---TCAGGACAGCGCCCTGCACTGGGC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1:::::
473 PheProAsnGluPheAspGluLeuGluIleGlnGlyLysbeuProAspProValLysGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---TTCCGGCAGGAGGCCAGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        x US-10-115-482-50 (1-911)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      911
75
75
168
13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
PRIOR FILING DATE: 2001-04-27
PRICR APPLICATION NUMBER: 60/288,257
PRICR APPLICATION NUMBER: 60/294,134
PRICR APPLICATION NUMBER: 60/291,134
PRICR APPLICATION NUMBER: 60/291,134
PRICR FILING DATE: 2001-05-15
PRICR PILING DATE: 2001-05-17
PRICR APPLICATION NUMBER: 60/291,725
PRICR APPLICATION NUMBER: 60/294,771
PRICR APPLICATION NUMBER: 60/294,771
PRICR APPLICATION NUMBER: 60/294,771
PRICR APPLICATION NUMBER: 60/296,965
PRICR FILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR FILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
PRICR PILING DATE: 2001-06-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-836-392-8_COPY_22_2205 (1-2184)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCATGAAGAACTTCTCCGAG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.36e-12
327.50
45.48%
26.10%
8.07%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
CORGANISM: Homo sapiens
US-10-115-482-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . No. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1009 CCAGCTGTCACCTGCTTCTTGGCCGTGCCTGTTATAAA-----AAGAATTCCTAC 1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               949 TACATCTACACCCTCAAGGGCATGTGCCCCTTAAACACACCCCAACAGGCCTTGGATACT 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NEGAL INCRMATION:

NEGAL INCRMATION:

ITLE OF INVENTION: NOVEL HUMAN PROTEINS, POLYNUCLEOTIDES ENCODING THEM

ITLE OF INVENTION: NOVEL HUMAN PROTEINS, POLYNUCLEOTIDES ENCODING THEM

ITLE OF INVENTION: AND METHODS

ITLE OF INVENTION: OF USING THE SAME

ITLE OF INVENTION: OF USING THE SAME

ITLE REFERENCE: 21404-322D

URRENT PAPLICATION NUMBER: 60/281,086

RIOR FILING DATE: 2001-04-03

RIOR PILING DATE: 2001-04-03

RIOR FILING DATE: 2001-04-05

RIOR FILING DATE: 2001-04-05

RIOR FILING DATE: 2001-04-05

RIOR PILING DATE: 2001-04-05

RIOR FILING DATE: 2001-04-05

RIOR FILING DATE: 2001-04-10

RIOR FILING DATE: 2001-04-10

RIOR FILING DATE: 2001-04-12

RIOR FILING DATE: 2001-04-12

RIOR FILING DATE: 2001-04-12

RIOR FILING DATE: 2001-04-12

RIOR FILING DATE: 2001-04-12

RIOR FILING DATE: 2001-04-13

RIOR FILING DATE: 2001-04-13

RIOR FILING DATE: 2001-04-13

RIOR FILING DATE: 2001-04-13

RIOR FILING DATE: 2001-04-13

RIOR FILING DATE: 2001-04-13

RIOR FILING DATE: 2001-04-13

RIOR FILING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR FILING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13

RIOR PLING DATE: 2001-04-13
             645
                                                                                                                                     705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            603 ValHisLeuProValGluLysGluSerTrplleValSerGlyThrGlnSerGlyThrLeu 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    529 IleLeuAsnSerAla-----GluLeuValCysLeuThrArgArgIleLeuLeuPro 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        844 AAGGGCCTCATGGAGGTG------CAGAGGATGTGCTGCCCTGGGATGAAGGTGAGC 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                895 TGCCAGCTCCAGGTCCAGAGATCCCTGTGG-----ACAGCCACCGAGGACCAGAAAATC 948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   643 ------ValThrCysLeuTyrCysAsnSerPheSerLysGlnSerLysGlnLysAsn 659
                                                                                                                                                                                                                                                                                                                                                                                     ---ACAGCCTTCTCTCATCCCAGGGCCAGGAGTACACCGTGGTTT 795
      586 GTTCTGGGCAGCCGGAAGAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGC
                                                                                                                                                                             509 LeuLysGluAsnProGluGluArgProThrSerAlaGlnValPheSerGlnValPheAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    586 GlyTyrThrSerGluGluValAlaAspSerArgIleLeuCysLeuAlaLeu-----
                                                                  493 TyrGlyCysAlaPro-----TrpProMetValGluLysLeuIleLysGlnCys
                                                                                                                                  546 TGGGACACTAAGCCAGAGAAGCGACCGCTGGCCCTGTCGGTGGTGAGCCAGATGAAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 546 LysAsnValIleValGluCysMetValAlaThrHisHisAsnSerArgAsnAlaSerIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGATGGA-----AAAGAGGAGTCCAGGAACTACACGGTGGTGAACACAGAG
                                                                                                                                                                                                                                                          706 CCGACTITIGCCACCTFCATGTATGAACTGTGCGGTGTGGGAAGCAG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1063 CTGGTCTTAGCGGGCCTCGCCGATGGGCTTGTGGCTGTGTTT 1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660 PheLeuLeuValGlyThrAlaAspGlyLysLeuAlaIlePhe 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/287,213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0-115-482-50
quence 50, Application US/10115482
bblication No. US20030212257A1
NERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             964
                                                                                                                                                                                                                                                                                                                                                                                     751
```

```
970 ATGIGCCCCTIAAACACACCCCAACAGGCCTIGGATACTCCAGCTGTCGTCACCTGCTTC 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1546 TyrcysAsnSerPheSerLysGlnSerLysGlnLysAsnPheLeuLeuvaldlyThrAla 1565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ...
1432 AlaGluLeuValCysLeuThrArgArgIleLeuLeuProLysAsnValIleValGluCys 1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1452 MetValAlaThrHisHisAsnSerArgAsnAlaSerIleTrpLeuGlyCysGlyHisThr 1471
                                                     1201 AlavalLysilePheAsnLysHisThrSerLeuArgLeuLeuArgGlnGluLeuValVal 1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 805 AAAGAGGAGTCCAGGAACTACACGGTGGTGAACACACAGAGAAAGGGCCTCATGGAGGTG--- 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----CAGAGGATGTGCCCCTGGGATGAAGGTGAGCTGCCAGCTCCAGGTCCAGAA 915
                                                                                                                                                                       190 AGAGATTCTTCTTCTTATACCCCTGGGACACATGCTCACCCAAAAAATAGCCTACCAGATC 249
                                                                                                                                                                                                                                             GCCTCGGGCCTGGCCTGCCTGCACAAAAACATCATCTTCTGTGACCTGAAGTCGGAC 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      646 TGGGACACTAAGCCAGAGGGACCGCTGGCCCTGTCGGTGGTGAGCCAGATGAAGGAC 705
                                                                                                      130 TECTTCGCCCTGGAGCTCGCGCCCCTCAGCCTCAACACCGTGTGCTGTCCGAGAACGCC 189
                                                                                                                                                                                                                                                                                                              AACATTCTGGTGTGGTCCCTTGACGTCAAGGAGCACATCAACATCAAGCTATCTGACTAC
                                                                                                                                                                                                                                                                                                                                                                                     GGGATTTCGAGGCAGTCATTCCATGAGGCGCCCTAGGCGTGGAGGGCACTCCTGGCTAC
                                                                                                                                                                                                                                                                                                                                                                                                             |||||||::::::
|316 GlylleAlaGlnTyrCysCysArgMetGlyIleLysThrSerGluGlyThrProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGGCCCCAGAGATC---AGGCCTCGCATTGTATATGATGAGATAGATATGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               538 -----CACCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAAGGGCATCCGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                706 CCGACTTTTGCCACCTTCATGTATGAACTGTGCGGAAGCAGCAGACA------GCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       916 TCCCTGTGG-----ACAGCCACCAGAGGACCAGAAATCTACATCTACACCCTCAAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1030 ITGGCCGTGCCTGTTATTAAA-----AAGAATTCCTACCTGGTCTTAGCGGGCCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            487 TATGGAATGGTGCTCTACGAGTTGCTG---TCAGGACAGCGCCCTGCACTGGGC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    586 GITCIGGGGCAGCCGGAGGAAGTGCAGITCCGGCGACTGCAGGCGCTCATGATGGAGTGC
                                   CIGCACGCGCIGCAGCCCCTGCATCGTGGCGCTCATCGGCATCAGCATCACCCGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  757 ITCTICITCATCCCAGGGCCAGGAGTACACCGTGGTGTTTTGGGATGGA------
                                                                                                                                                                                                                                                                                                                    310
                                                                                                                                                                                                                                                                                                                                                       1296
                                                                                                                                                                                                                                                                                                                                                                                        370
                                                                                                                                                                                                                                                                                                                                                                                                                                                             430
                                      70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  충
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Бb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               දු දු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            £
E
                                                                                                                                                                                                          g
                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                               . 6
                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                g
                                                                                                ઠે
                                                                                                                                 q
                                                                                                                                                                            챵
                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGIGCCCCTTAAACACACCCCAACAGGCCTTGGATACTCCAGCTGTCGCCTGCTTC 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .030 ITGGCCGTGCCTGTTATTAAA-----AAGAATTCCTACCTGGTCTTAGCGGGCCTCGCC 1083
                                                                                                                                                                                                                                                                                                                                      -----CAGAGGATGTGCCCCTGGGATGAAGGTGAGCTGCCAGCTCCAGGTCCAGAGA 915
                                                                                                                                                                                                                                                                                                                                                              AlaAspSerArgIleLeuCysLeuAlaLeu------ValHisLeuProValGluLys 605
                                                                                                                                                                                                                                                                                                                                                                                                         916 TCCCTGTGG-----ACAGCCACCGAGGACCAGAAAATCTACATCTACACCCTCAAGGGC 969
                                                                                                                                                                                                                                                                                                                                                                                                                                 626 GlyLysLysArgHisThrLeuGluLysMetThrAspSer-----ValThrCysLeu 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  643 TyrCysAsnSerPheSerLysGlnSerLysGlnLysAsnPheLeuLeuValGlyThrAla 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----TTCCGGCAGGAGGCCAGCATG
     LeuLysGluAsnProGlnGluArgProThrSerAlaGlnValPheAspIleLeuAsnSer
                                                                                                                                                             AlaGluLeuValCysLeuThrArgArgIleLeuLeuProLysAsnValIleValGluCys
                                                                                                                                                                                                                                                                                                 569 AspArgGlyGlnLeuSerPheLeuAspLeuAsnThrGluGlyTyrThrSerGluGluVal
                                                         TGGGACACTAAGCCAGAGCGACCGCTGGCCCTGTCGGTGGTGAGCCAGATGAAGGAC
                                                                                                                                                                                                 757 TICHTCHCATCCCAGGGCCAGGAGTACACCGTGGTGTTTTGGGATGGA-----
                                                                                                                                                                                                                                  MetValAlaThrHisHisAsnSerArgAsnAlaSerIleTrpLeuGlyCysGlyHisThr
                                                                                                                                                                                                                                                                   805 AAAGAGGAGTCCAGGAACTACACGGTGGTGAACACAGAGAAGGGCCTCATGGAGGTG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Meyers Rachel E.
APPLICANT: Meyers Rachel E.
APPLICANT: Meyers Rachel E.
ITILE OF INVENTION: 39267, Human Kinase Family Members and
ITILE OF INVENTION: USes Therefor
FILE REFERENCE: MPIO2-001PIRM
UTRRENT APPLICATION NUMBER: US/10/335,687A
UTRRENT PLING DATE: 2003-01-02
PRIOR FILING DATE: 2002-01-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FastSEQ for Windows Version 4.0
aQ ID NO 2
LENGTH: 1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          x US-10-335-687A-2 (1-1818)
                                                                                                                              CCGACTITIGCCACCITCATGIAIGAACIGIGCIGIGGGAAGCAGACA--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indele:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCATGAAGAACTTCTCCGAG-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATGGGCTTGTGGCTGTTT 1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ||||||| :::||||:::|||
663 AspGlyLysLeuAlaIlePhe 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           equence 2, Application US/10335687A iblication No. US20030166222A1 SNERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-836-392-8_COPY_22_2205 (1-2184)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2.6e-12
327.50
45.48%
26.10%
8.07%
                        TyrGlyCysAlaPro-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cent Similarity:
t Local Similarity:
ry Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gnment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .0-335-687A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-335-687A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28
                        193
                                                         646
                                                                                          509
                                                                                                                            904
                                                                                                                                                             529
                                                                                                                                                                                                                                  549
                                                                                                                                                                                                                                                                                                                                        862
                                                                                                                                                                                                                                                                                                                                                                           589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     No.:
```

1335

429

```
1412 LeuLysGluAsnProGlnGluArgProThrSerAlaGlnValPheAspIleLeuAsnSer 1431
                                                                                                                                                                                                                                                                                                                                                                                                                                           ::::::
1452 MetValAlaThrHisHisAsnSerArgAsnAlaSerIleTrpLeuGlyCysGlyHisThr 1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           910 ATGIGCCCCTIAAACACACCCCAACAGGCCTTGGATACTCCAGCTGTCGTCACCTGCTTC 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1529 GlyLysLysArgHisThrLeuGluLysMetThrAspSer-----ValThrCysLeu 1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1030 TTGGCCGTGCCTGTTATTAAA-----AAGAATTCCTACCTGGTCTTAGCGGGCCTCGCC 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1432 AlaGluLeuValCysLeuThrArgArgIleLeuLeuProLysAsnValIleValGluCys 1451
538 ------CACCACCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCG 585
                                                                                                                                                                                                  646 TGGGACACTAAGCCAGAGAGCGACCGCTGGCCGTGGTGGTGAGCCAGATGAAGGAC 705
                                                                                                                                                                                                                                                                                                  706 CCGACTITIGCCACCTICATGIATGAACTGIGCTGTGGGAAGCAGACA------GCC 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     805 AAAGAGGAGTCCAGGAACTACACGGTGGTGAACACAGAGAAGGGCCTCATGGAGGTG--- 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           862 -----CAGAGGATGTGCCTGGCATGAAGGTGAGCTGCCAGCTCCAGGTCCAGAGA 915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              916 TCCCTGTGG-----ACAGCCACCGAGGACCAGAAAATCTACATCTACACCCTCAAGGGC 969
                                                                                                  586 GITCTGGGGCAGCAGCAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGAGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                     757 ITCITCICATCCCAGGGCCAGGAGIACACCGIGGIGITITGGGAIGGA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: BROADAN, Olga; NGUYEN, Danniel B;
APPLICANT: WALIA, Narinder K.; HAFALIA, April J.A.;
APPLICANT: YaO, Monique G.; GANDHI, Ameena R.;
APPLICANT: YaO, Monique G.; GANDHI, Ameena R.;
APPLICANT: YaO, Monique G.; GANDHI, Ameena R.;
APPLICANT: BAUGHN, Mariah R.; TRIBOULEY, Catherine M.;
APPLICANT: BAUGHN, Mariah R.; TRIBOULEY, Catherine M.;
APPLICANT: HOLYONG, Janlee; TANGY, Y. Tom,
APPLICANT: AD-YONG, Janlee; TANGY, Y. Tom,
APPLICANT: AD-YONG, Janlee; TANGY, Y. Tom,
APPLICANT: AD-YONG, Janlee; TANGY, Y. Tom,
APPLICANT: MARCUS, Gregory A.; ZINGLER, Kurt A.;
APPLICANT: MARCUS, Gregory A.; ZINGLER, Kurt A.;
APPLICANT: MARCUS, Gregory A.; ZINGLER, Kurt A.;
APPLICANT: MARCUS, Gregory A.; ZINGLER, Burgort
APPLICANT: THANGANTEN, Liam; POLICKY, Jennifer L.;
APPLICANT: THANGANTEN, KAVITHA; BURFORD, Neil
TITLE OF INVENTION: HUMAN KINASES
FILE REFERENCE: PI-0209 USA
CURRENT APPLICATION NUMBER: US/10/288,798
CURRENT APPLICATION NUMBER: US/01/2119
PRIOR FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: US 60/240,542
PRIOR APPLICATION NUMBER: US 60/240,542
PRIOR APPLICATION NUMBER: US 60/240,542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1084 GATGGGCTTGTGGCTGTTT 1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ||||||| :::|||:::|||
1566 AspGlyLysLeuAlailePhe 1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 12, Application US/10288798 Publication No. US20030207299A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-288-798-12
                                     유
                                                                                                  ò
                                                                                                                                     g
                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                     ଚ
                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1241 MetLeuValMetGluLeuAlaSerLysGlySerLeuAspArgLeuLeuGlnGlnAspLys 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1276 AlaAspGlyLeuArgTyrLeuHisSerAlaMetIleIleTyrArgAspLeuLysProHis 1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCACGCGCTGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATCCACCGCTC 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      130 TECTTCGCCCTGGAGCTCGCGCCGCTCAGCAGCCTCAACACGCGTGCTGCTCCGAGAACGCC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190 AGAGATTCTTCCTTTATACCCCTGGGACACATGCTCACCCAAAAATAGCCTACCAGATC 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            250 GCCTCGGGCCTGGCCTGCCACAAGAAAACATCATCTTCTGTGACCTGAAGTCGGAC 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              310 AACATTCTGGTGTGGTCCCTTGACGTCAAGAGCACATCAACATCAAGCTATCTGACTAC 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGATITICGAGGCAGICATICCATGAGGGCGCCCTAGGCGTGGAGGGCACTCCTGGCTAC 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAIGGAAIGGIGCICTACGAGIIGCIG---ICAGGACAGCGCCCIGCACIGGGC---- 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCATGAAGAACTTCTCCGAG-------TTCCGGCAGGAGGCCAGCATG 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGGCCCCAGAGATC -- - AGGCCTCGCATTGTATATGATGAGAAGGTAGATATGTTCTCC
                                                                                                                                                                                                                                     PPLICANT: Meyers, Rachel B.
APPLICANT: Meyers, Rachel B.
APPLICANT: Millennium Pharmaceuticals, Inc.
ITLE OF INVENTION: 39267, Human Kinase Family Members and
ITLE OF INVENTION: Uses Therefor
ILE REPERBRYCE: MP102-001PRNM
URRENT APPLICATION NUMBER: US/10/335,687A
PRIOR APPLICATION NUMBER: 06/345,773
PRIOR APPLICATION NUMBER: 60/345,773
WUMBER OF SEQ ID NOS: 20
SOFTWARE: FastSEQ for Windows Version 4.0
LENGTH: 1824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                )9-836-392-8_COPY_22_2205 (1-2184) x US-10-335-687A-5 (1-1824)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                             1566 AspGlyLysLeuAlailePhe 1572
                                                                                                                                                                  equence 5, Application US/10335687A
ublication No. US20030166222A1
                1084 GATGGCCTTGTGGCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           327.50
45.48%
26.10%
8.07%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
.0-335-687A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :ent Similarity:
  Local Similarity:
   Match:
                                                                                                                                                                                                                SNERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 430
```

```
qq
                                                                                                                                                                                                                                                                               සි හි
                                                                                                                                                                                                                                                                                                                                                Д
                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               р
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                              8 B
                                                                                                                                                   d
                                                                                                                                                                                    à
                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  194 LeuPheAlaMetLeuLysHisProAsnIleIleAlaLeuArgGlyValCysLeuLysGlu 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          243 ValAsnTrpAlaValGinileAlaArgGlyMetAsnTyrLeuLeuAspGluAlaIleVal 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               263 ProllelleHisArgAspLeuLysSerSerAsnIleLeulleLeuGlnLysValGluAsn 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         283 GlyAspLeuSerAsnLysIle---LeuLysIleThrAspPheGlyLeuAlaArgGluTrp 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          388 TICCAIGAGGGCGCCCTAGGCGIGGAGGGCACTCCTGGCTACCAGGCCCCAGAGAICAGG 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                322 ArgAlaSerMetPheSerLysGlySerAspValTrpSerTyrGlyValLeuLeuTrpGlu 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        174 ArgHisAspproAspGluAspIleSerGlnThrIleGluAsnValArgGlnGluAlaLys 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67 ATGCTGCACGCGCTGCAGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATCCACCCG 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 GAGAACGCCAGAGATTCTTCCTTTATACCCCTGGGACACATGCTCACCAAAAATA--- 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           331 ---GACGTCAAGGAGCACATCAACATCAAGCTATCTGACTACGGGATTTCGAGGCAGTCA 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HISAEGThrThrLysWetSerAlaAlaGlyThrTyrAlaTrpMetAlaProGluValIle 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             448 CCTCGCATTGTATATGATGAGGAAGGTAGATATGTTCTCCTATGGAATGGTGCTCTACGAG 507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            508 TIGCIGICAGGACAGCGCCCIGCACTGGGCCACCACCACCICCAGATIGCC----- 558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7 AGGCACCTGCGGGCCACCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGGAGGCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----GlyLysArgileProProAspileLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           238 -----GCCTACCAGATCGCCTCGGCCTGCCTACCTGCACAAGAAA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         127 -----CTCTGCTTCGCCCTGGAGCTCGCGCCCCTCAGCAGCCTCAACACCCGTGCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            280 AACATCATCTTCTGTGACCTGAAGTCGGACAACATTCTGGTGTGGTCCCTT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-836-392-8_COPY_22_2205 (1-2184) x US-10-288-798-12 (1-1097)
                                                                                                                                                                                                                                                                                                     NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID No. US20030207299A1 55052990CD1
10-288-798-12
                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
PRIOR FILING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: US 60/236,499
PRIOR FILING DATE: 2000-09-29
PRIOR FILING DATE: 2000-09-22
PRIOR FILING DATE: 2000-09-22
PRIOR FILING DATE: 2000-09-14
PRIOR FILING DATE: 2000-09-14
PRIOR APPLICATION NUMBER: US 60/231,357
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-08-11
NUMBER OF SEQ ID NOS: 48
SOFTWARE: PERL PROGRAM
EQ ID NO 12
LENGTH: 1097
                                                                                                                                                                                                                                                                                                                                                                           ..36e-11
315.50
33.76%
22.89%
7.77%
                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                   cent Similarity:
t Local Similarity:
ry Match:
                                                                                                                                                                                                                                                                                                                                                                gnment Scores:
d. No .
                                                                                                                                                                                                                                                                                                                                                                                         No.
```

```
-----GGAGATCTGCAGGCGGCTGGAGCCCTACAT------GGCCCCTCCATGGT 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .---- 1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAGG------GCATGTGCCCCTTAAACACCACCAACAGGCCTT 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ------ACCTGGTCTTAGA TTCCT-------ACCTGGTCTTAGC 1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----CGCCGATGGGCTTGTGGCTGTTTTCCCGTGGTGCGGGGCACCCCAAAGGACAG 1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1134 CTGCTCCTACCTGTGCTCACACACCCAACAGGTCCAAGTTCAGCATCGCGATGAAGA 1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1194 CGCACGGCAGAACCCCTACCCAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCTGAGGT 1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .254 CTGGTACAGCAATGGGCCGGGCCTCCTTGTCATCGACTGTGCCTCCCT-------1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            522 eraspPheGlnHisLysPheThrValGlnAlaSerProThrMetAspLysArgLysSerL 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          582 luGluGluGluGluGluGluLysArgAlaProLysLysLysGlyArgThrTrpGly-Pro 601
                                                                                                                                                                                                732
                                                                                                                                                                                                                                    :::::||| ||| |||||| ::: ||| |||| 463 GluieubeuArgArgArgGluileAspilebeuGluA 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       542 euileAsnSerArgSerSerProProAlaSerProThrIleIleProArgLeuArgAlaI 562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  562 leGlnLeuThrProGlyGluSerSerLysThrTrpGlyArgSerSerValValProLysG 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             602 GlyThrLeuGlyGlnLysGluLeuAlaSerGlyAspGluGlyLeuLysSerLeuValAsp 621
                                                                                     672
                                                                                                                         CTGTGCTGTGGGAAGCAGACAGCCTTCTTCTC-ATCCCAGGGCCAGGAGTACACCGTGGT 791
                                                                                                                                                                                                                                                                                                                                                                                                                         792 GITITGGGATGGAAAAGAGGAGTCCAGGAACTACACGGT------GGTGAACACAGA 842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            443 GluLeuArgThrTrpGluGluGluLeuThrArgAlaAlaLeuGlnGlnLysAsnGlnGlu 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  482 rgGluLeuAsnIleIleIleHisGlnLeuCysGlnGluLysFroArgValLysLysArgL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -------GGGCCTCATGGAGGTGCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ------TCTACATCTACACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ------GlnHisSerProSerGlnSerTyrLeuCysIleProPheProArgGly
                                                                                     613 TICCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACTAAGCCAGAGAAGCGACCG
                                                                                                                                                                                                673 CTGGCCCTGTCGGTGGTGAGCCCAGATGAAGGACCCGACTTTTGCCACCTTCATGTATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 867 GAIGIGCIGCCCIGGGAIGAAGGIGAGCIGCCAGCICCAGGICCAGAGAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----CCCTGTGGACAGCCACGAGGACAGAAA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      641 ProAlaLeuProGlyPheThrSerLeuMetGluMet----------------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----GluaspGluaspSerGluGlyProGlySerGlyGluSerArgLeu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               502 ysGlyLysPheArgLysSerArgLeuLysLeuLysAspGlyAsnArgIleSerLeuProS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1002 GGATACTCCAGCTGTCGTCACCTGCTTCTTGGCCGTGCCTGTTA-----
362 AlaMetAsnLysLeuAlaLeuProlleProSerThrCysProGluFro-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      843 GAA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1074 GGGCCT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1302
                                                                                                                                                                                                                                                         394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    899
```

```
183 AlavallystysvalArgAspLeuLysGluThrAspIleLysHisLeuArgLysLeuLys 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    139 CTGGAGCTCGCGCCCCCCAGCCTCAACACCGTGCTGTCCGAGAACGCCAGAGATTCT 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GRGTGGTCCCTTGACGTCAAGGACACATCAACATCAAGCTATCTGACTACGGGATTTCG 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      379 AGGCAG---TCATTCCATGAGGGCGCCCTAGGCGTGGAGGGCACTCCTGGCTACCAGGCC 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IIII III
LysGlubeuSerAspLysSerThrLysMetSerPheAlaGlyThrValAlaTrpMetAla 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGAGATCAGGCCTCGCATTGTATATGATGAGAAGGTAGATATGTTCTCCTATGGAATG 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGCTCTACGAGTTGCTGTCAGGACAGCGCCCT---------528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----GCACTGGGCCACCACCACCACTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGC 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             583 CCGGTTCTGGGGCAGCAGCAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAG 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28 GCCATGAAGAACTTCTCCGAGTTCCGGCAG---GAGGCCAGCATGCTGCACGCGCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |||||| |||:::
203 HisProAsnilelleThrPheLysGlyValCysThrGlnAlaProCysTyrCysIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          223 MetĠluPheCysAlaGlnGlyGlnLeuTyrGluValLeuArgAlaGlyArg-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCTTTATACCCCTGGGACACATGCTCACCCAAAAATAGCCTACCAGATCGCCTCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240 ------provalThrProSerLeuLeuValAspTrpSerMetGlyileAlaGlydly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         259 CTGGCCTACCTGCACAAGAAAAACATCATCTTCTGTGACCTGAAGTCGGACAACATTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-836-392-8_COPY_22_2205 (1-2184) x US-10-153-668-438 (1-892)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        892
168
256
236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       352 IleTrpGlyValGlySerAsnSerLeuHisLeu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
CURRENT APPLICATION NUMBER: US/10/153,668
CURRENT FILING DATE: 2002-05-24
PRIOR APPLICATION NUMBER: US 60/293,172
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: US 60/316,031
PRIOR APPLICATION NUMBER: US 60/316,031
PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR PILING DATE: 2001-08-31
PRIOR FILING DATE: 2001-05-25
PRIOR PRIOR APPLICATION NUMBER: UP 2001-157043
PRIOR FILING DATE: 2001-05-25
PRIOR PILING DATE: 2001-08-30
PRIOR PILING DATE: 2001-08-30
PRIOR PILING DATE: 2001-10-10
PRIOR PILING DATE: 2001-10-10
PRIOR PILING DATE: 2001-10-10
PRIOR PILING DATE: 2001-10-10
PRIOR PILING DATE: 2001-10-10
PRIOR PILING DATE: 2001-10-10
PRIOR PILING DATE: 2001-10-10
PRIOR PILING DATE: 2001-10-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               297.50
34.40%
22.40%
7.33%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Homo sapiens
US-10-153-668-438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                              1475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1487
                                                                                                                                                                                                              1395 GTGCCTGGATGACAAGGCCAACTCCTTGGTGATGTACCACTCCACCACCTACCAGCTGTG 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----CAGGGACATGTTT-----CCCGTGCGGCCC---TTGGACAC 1520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAACCCCCGGCAGCCAGC-----CACACGCCAACCCAAAGGTGCCTGAGGGGGGACTC 1574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1575 CATCGCGGACGTGAGCATCATGTACAGTGAGGAGCTGGGCACGCAGATCCTGATCCACCA 1634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1635 GGAATCACTCACTGACTGCTCCATGTCCTCCTACTCCTCA---TCCCCACCCCGCCA 1691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1734 TICTICCAGIGIGCCTITCICCACCGACTGCGAGGACTCAGACATGCTACAT.---- 1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1786 -----AGGCCGGTGC 1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1797 IGCCICCGACAGGICIGAGCAIGACCIGACCCCCAIGGACGGGGAGACCTICAGCCAGCA 1856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1857 CCTGCAGGCCGTGAAGATCCTCGCCGTCAGAGACCTCATTTGGGTCCCCCAGGCGCGCGTGG 1916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1917 AGAIGITAICGICATIGGCCIGGAGAAGGAITCIGAAGCCCAGCGGGGCCGAGICATIGC 1976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     825 rLeuLeuArgSerAspSerAspGluIleValValTyrGluMetProValSerProValGl 845
       684 GluAspGlyAspGlyProSerSerAspGlyIleHisGluGluProThrProValAsnSer 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------SerLeuSerSerlleSerGluCysAsnSerThrArgSe 825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     862 lGluArgPheLysArgAspProAsnGlnSerLeuThrProThrHisValThrLeuThrTh 882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          882 rProserglnProserSerHisArgArgThrProSerAspGlyAlaLeuLysProGluTh 902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      902 rLeuLeuAlaSer-ArgSerProSerSerAsnGlyLeuSerProSerProGlyAlaGlyG 922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            746 LeuLeuGluAlaGlyLysCysGlnLeuLeuProLeuGluGluProGluProProAlaArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ::: ||| ::: ||| 845 uAla------ProProLeuSerProCysThrHisAsnProLeuValAsnValArgVa
                                                                         1347 TACGTCAGTCGTGTGCAGCTCTGAGGG------CAGAGGGGAGGAGGAGGTCGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :::|||||||||||| 3.104 AlaThrSerThrProThrAsnSerLeuLysArgGlyGlyAla----
                                                                                                                                                                                                                                                                                        ----HisHis-----ArgArg
                                                                                                                                                                                                                                                                                                                                                      1455 TGCCCGGTACTTCTGCGGGGT-----
                                                                                                                                                                                                                                                                                                                                                                                                                         726 CysGluvalAlaLeuLeuGlyCysGlyAlaValLeuAlaAlaThrGlyLeuGlyPheAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ---CCCCAGCCCCCT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       805 oSerAlaSerLeuThrLeuLeu------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lr 13
.0-153-668-438
.0-153-668-438
.0-153-668-438
.0-153-668-438
.0-153-668-438
.0-153-668-438
.0-153-668-438
.0-153-668-438
.0-153-668-438
.0-153-668-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-438
.0-153-68-48-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48
.0-153-68-48

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1692 GGCTGCCAGGTCCCCCTCA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTCT 1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       942 roser 943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               813
                                                                                                                                                                                                                                                                                    722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1977
```

291

256

1468 7005 7005 7005	Alignment Scores: 2.33e-10 Length: 859
	1408 AAGGCCAACTCCTTGGTGATGTACCACTCCACCAGCTGTGTGCCCGGTACTTC 1467

 435		895 IGCCAGGICCAGAGATC 474 OHisProSerArgGlyLeuLeuH	955 TACACCCTCAAGGGCATGTGCCC : 494 nValProGlnAsnLeuSer		511 aGluSer	aleuSerGlyValGlyLe	1135 TGCTCCTACCTGTGCTCACACACACACACACACACACACA	1195 GCACGCCAGAACCCCTACCCAGT		1255 TGGTACAGCAATGGGCCGGGCCT(:: 553 sGlySerCysGlyAspLeuProGl	1315 CGGCTGGAGCCCT		1345 GTTACGT	1354 GTCGTGTGCAGCTCTGAGGGCAG		1408 AAGGCCAACTCCTTGGTGATGTAC 		:::: 653 rSerProAspSerProGlyGlyAl	1504 GTGCGGCCCTTGGACACGGAACC-			688 rgGlyGlySerArgAlaGlySerG	708 AlaValThrArgSerGlnLysArg	1579 GCGGACGTGAGCATCATGTACAGT	728 SerGluValGluLeuThrSerSer 1639 TCACTCACTGACTACTGCTCCATG))
D D	g 5	<u> </u>	සි ර	ò	음 6	2 dd	ර් ස්	3 8	đ	දි දි	ò	<u>අ</u> දි	≩ 8	ò	අ	දි දි	ò	đ	ζ	වූ (8 1	g &	qu	Š	<u>අ</u> දි	Š
							<u> </u>			-						*						-			-	•
re: 295.50 Matches: 168 cent Similarity: 34.27% Conservative: 89 t Local Similarity: 22.40% Mismatches: 257 ry Match: 15 Gaps: 31	2_2205 (1-2184) :	28 GCCATGAACAACTTCTCCGAGTTCCGGCCAGGAGGCCAGCATGCTGCACGCGCTGCAG 84 :::	1 5	AGAGATTCT 19		199 TCCTTTATACCCTGGGACACATGCTCACCCAAAAATAGCCTACCAGATGGCCTGGGGC 258 207ProvalThrproSerleuleuvalAsdTrSerMetGlvTlaladalvGlv					239 LystiuleusetasplysserintlysmetserrneAlagiyintValAlaTipmetAla 278 436 CCAGAGATCAGGCCTCGCATTGTATGATGAGAAGGTAGATAGTTGCTCCCTTCCTGGAATG 495	:::: ::: 279	52	529GCACTGGGCCACCACCAGCTCCAGATTGCCAAGAAGCTGCTCCAAGAGGCATCGC 582	319	CCGGIICTGGGGCAGCCGGAGGAAGIGCAGIICCGG	ProvalProserSerCysProAspGlyPheLysIleLeuLeuArgGln 34	943 JOUGGOAGLIANDCHARAGANGANGCONTONNONNONNONNONNONNONNONNONNONNONNONNO	CAGATGAAGGACCCGACTTTGCCACCTTCATGTATGAACTGTGCTGTGGG	::: 366 IleAlaSerAla374	- A.	375 ProGlnGluThrTyrPheLysSerGlnAlaGluTfpArgGluGluValLysLeuHisPhe 394	/84 ACCGTGGTTTTGGGATGGA	GAGTCCAGGAAC	415 ArgArgGluGluLeuArgHisAlaLeuAspIleArgGluHisTyrGluArgLysLeuGlu 434	823GAG 843

Garaga G	549 - 708 A
--	----------------

```
1249 GAGGICIGGIACAGCAATGGGCCGGGCCTCCTTGICATCGACTGIGCCTCCCTGGAGAIC 1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .072 GCGGGCCTCG------ 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----CCGATCGGCTTGTGGCTGTGTTTCCCGGTGCGGGGCACCCCAAAGGACAGC 1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1135 TGCTCCTACCTGTGCTCACACACAGCCAACAGGTCCAAGTTCAGCATCGCGGATGAAGAC 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1195 GCACGGCAGAACCCCTACC----CAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCT 1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      994 CAGGCCTTGGATACTCCAGCTGTCGTCACCTGCTTCTTGGCCGTGCCTGTTATAAAAAG 1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              aSer------ArgGlySerGlyAlaGluValThrLeulleAs 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       500 uLeuSerThrSerArgProProGlnHisLeuGlyGlyValLysLysProThrTyrAspPr 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           520 oValSerGluAspGlnAspProLeuSerSerAspPheLysArgLeuGlyLeuArgLysPr 540
                                                                                                                    CGCCCTGCACTGGGCCACCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAG----GGCATC 579
                                                                                                                                                                                                                                                                                                                                       580 CGCCCGGTTCTGGGGGGGCGGGGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATG 639
                                                                                                                                                                                                                                                                                                                                                                                                                                                     640 GAGTGCTGGGACACTAAGCCAGAGAAAGCGACCGCTGGCCCTGTCGGTGAGCCAGATG 699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          376 -----ProThrPheValAlaLeuArgAspPheLeuLeuGluAlaGlnProThrAspMet 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              394 ArgAlaLeudinAspPhedluGluProAspLysLeuHisIleGlnMetAsnAspValIle 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    784 ACCETGETGTTTTGGGATGGAAAAGAGGAGTCCAGGAACTACACGGTGGTGAACACAGAG 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  844 AAGGGCCTCATGGAGGTGCAGAGGATGTGCTGCCTGGG--------ATGAAG 888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       --------ArgThrLeuCysValGlyProPheProArgAsnValVal 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             444 ThrSer-ValAlaGlyLeuSerAlaGlnAspIleSerGlnProLeuGlnAsnSerPhell 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----ACCAGAAAATCTACATCTACACCCTCAAGGGCATGTGCCCCCTTAAACACACCCCAA 993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            572 pPheGlyGluGluProValValProAlaLeuArgProCysProProSerLeuAlaGlnLe
                                                                             409 GIGGAGGGCACICCI -- GGCTACCAGGCCCCAGAGAICAGGCCICGCATIGIAIAIGAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               366 GlncystrpAlaHisLysProGluAspArg------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |||||||::
414. Thrvallle-----GluGlyArgAlaGluAsnTyrTrpTrpArgGlyGlnAsnThr---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 463 eHisThrGlyHisGlyAspSerAspPro---ArgHisCysTrp-----GlyPheProAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540 oGlyleuProArgGlyLeuTrpLeuAlaLysProSerAlaArgValProGlyThrLysAl
                       269 GlyaspPheGlyLeuMetArgAlaLeuProGlnAsnAspAspHisTyrValMetGlnGlu
                                                                                                                                                                                           GAGAAGGTAGATATGTTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCA----GGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                889 GTGAGCTGCCAGGTCCAGAGATCCCTGTGGACAGCCACCGAGG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      760 TICICATCCCAGGGCCAGGAG-----------------
1054 AATT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
9
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                    හි සි. හි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         දු දු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \dot{\delta}
                                                                          à
                                                                                                                       g
                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                      8
                                                        1699 AGGICCCCTCAAGCCTCCCCAGCTCCCCAGCAAGTICTTCCAGTGTGCCTTTCTCCAGC 1758
                                                                                                                                                                   GACTGCGAGGACTCAGACATGCTACATACGCCCGGTGCTGCCTCCGACAGGTCTGAGCAT 1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 GluGlyThrAlaSerGluPro---SerProSerGlyThrProGluValGly---SerThr 778
                                                                                                                                                                                                       ::: :::::: AsnThrAspGluArgProAspGluArgSerAspAspMetCysSerGlnGlySerGluIle 798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      130 TGCTTCGCCCTGGAGCTCGCGCCGCTCAGCAGCCTCAACACCGTGCTGTCCGAGAACGCC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 TACCAGATCGCCTCGGGCCTGGCCTACCTGCACAAGAAAACATCATCTTCTGTGACCTG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301 AAGICGGACAACAIICIGGIGIGGCCCTIGACGICAAGGAGCACAICAACAICAAGCIA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTGACTACGGGGATTTCGAGG-------CAGTCATTCCATGAGGGCGCCCTAGGC 408
747 ------SerLeuSerThrPheSerSerGluAsnProSerAspGlyGlu 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            202 LysMetValThrGluLeuAlaProLeuGlySerLeuLeuAspArgLeuArgLysHisGln 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     234 ValGinValAlaGluGlyMetGlyTyrLeuGluSerLysArgPheIleHisArgAspLeu 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 190 AGAGATICTICCTITATACCCCIGGGACACATGCTC-----ACCCAAAAATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACGCCTGCAGCACCCTGCATCGTGGCGCTCATCGGCATCAGCATC---CACCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCGGGCCACCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGGAGGCCAGCATGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-836-392-8_COPY_22_2205 (1-2184) x US-09-771-161A-255 (1-1036)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                         aguence 255, Application US/09771161A
EVENT 10. US20020110811A1
EVENT 10. US20020110811A1
EVENT 10. US20020110811A1
APPLICANT: LEVINE, et al.
ITLE OF INVENTION: VARIANTS OF PROTEIN KINASES
FILE REPRESENCE: 80520-2005.1
UTRENT FILING DATE: 2001-01-26
FRIOR APPLICATION NUMBER: US/09/771,161A
FRIOR APPLICATION NUMBER: 13676
FRIOR APPLICATION NUMBER: 13676
FRIOR FILING DATE: 2000-11-28
FRIOR FILING DATE: 2000-06-15
FRIOR FILING DATE: 2000-06-15
FRIOR FILING DATE: 2000-06-12
FRIOR FILING DATE: 2000-06-12
FRIOR FILING DATE: 2000-06-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FRIOR DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR FRIOR 
                                                                                                                                                                                                                                                                              GACCTGACCCCCATGGACGGGAG 1842
                                                                                                                                                                                                                                                                                                                                       799 ProLeuAspProProProSerGlu 806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4.57e-10
291.00
33.57%
23.27%
7.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
99-771-161A-255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cent Similarity:
c Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                    1-161A-255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73
                                                                                                                                                                   1759
                                                                                                                                                                                                                                                                              1819
                                                                                                                                                                                                                         779
```

1			
	GluSerProThrArgAlaLeuProArgProLeuHisProThrProValVa 6	1347	
1348 ACGT : 622 l	ACGTCAGTCGTGCAGCTCTGAGGGCAGAGGGAGGAGGTCGTCTGGTGCCTGGATGAC 1	1407 626	
1408 AAGG 626 aArg	AAGGCCAACTCCTTGGTGATGTACCACCACCACCACCTACC	1447 641	
1448 641 pGlu		1488 661	
1489 AGGG 661 aGly	AGGGACATGTTTCCCGTGCGCCCTTGGACACGGAACCC 1:	1528 681	
1529 681 oPro	OPTOLEUGIUASPASDLEUPHELEUPTOPTOGINGIYGIYGIYUYSPTOPTOSETSETAI 7	1545	
1546 GCCA 701 aGln	GCCAACC	1581 716	
		1641	
716	7.	716	
1642 CTCA 717	CTCACTGACTACTGCTCCATGTCCTCCTACTCCTCATCCCCCGCCCCGCC	1690 735	
1691 735 sPro	sproglnValProProArgValProlleProProArgProThrArgProHisValGlnLe 7:	1713 755	
1714 CTCC 755 uSez	CTCCCCAGGTCCCCA 1'	1728 775	0
1729 GCAA ::: 775 oArg		1785 792	
1786 ACGC 793	ACGCCCGGTGCTCCCACAGGTCTGAGCATGACCTGACCCCCATGGACGGGGGACC 1:	1845 806	
1846 TTCA 806 user	TTCAGCCAGCACCTGCAGGCCGTGAAGATCCTCGCCGTCAGAGACCTCATTTGGGTCCCC 19	1905 823	
1906 AGGC 823 BDPr	AGGCGCGGTGGAGATGTTATCGTCATTGGCCTGGAGAAGGATTCTGAAGCCCAGCGGGGC 19 8DProLvefyr	1965 826	-
	CGTCTTAAAAGCCCGAGAGCTGACTCCGCATGGGGTGCTGGTGGATGCT ::: AlaThrProGlnVallleGlnAlaProGlyAlaGlyGlyProC	2025 841	
2026 GC 841 vsil	GCCGTGGTGGCAAAGGACACTGTTGTGTGCACCTTTGAAAATGAA 2: 	2070	

Search completed: December 14, 2003, 07:21:18 Job time : 321 secs

```
Sequence 8, Appli
Sequence 1, Appli
Sequence 7, Appli
Sequence 3, Appli
Sequence 50, Appli
Sequence 10, Appl
Sequence 436, Appl
Sequence 436, Appli
Sequence 1, Appli
                                                                                           December 14, 2003, 04:24:45; Search time 685 Seconds (without alignments) 10596.702 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1, Al
Sequence 149, Requence 1, Apr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                1 atgetgaggcacetgegggc......ttgcactegcaagagaagg 2184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Cgn2_6/ptodata1/pubpna/US07_ptuBCOMB.seq:*
| Cgn2_6/ptodata1/pubpna/US07_ptuBCOMB.seq:*
| Cgn2_6/ptodata1/pubpna/US06_btw_pub.seq:*
| Cgn2_6/ptodata1/pubpna/US06_btw_pub.seq:*
| Cgn2_6/ptodata1/pubpna/US06_PUBCOMB.seq:*
| Cgn2_6/ptodata1/pubpna/US08_btw_pub.seq:*
| Cgn2_6/ptodata1/pubpna/US08_btw_pub.seq:*
| Cgn2_6/ptodata1/pubpna/US08_btw_pub.seq:*
| Cgn2_6/ptodata1/pubpna/US08_pubCOMB.seq:*
| Cgn2_6/ptodata1/pubpna/US09_pubCOMB.seq:*
| Cgn2_6/ptodata1/pubpna/US09_NBW_PUB.seq:*
| Cgn2_6/ptodata1/pubpna/US00_NBW_PUB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 US-09-836-392-8
15 US-10-132-382-5
15 US-10-132-382-1
15 US-10-132-382-1
13 US-10-132-382-3
13 US-10-094-749-50
15 US-10-121-925-10
15 US-10-126-761-4356
15 US-10-166-761-1
15 US-10-101-464A-149
13 US-09-9320-790-1
11 US-09-935-464-2
11 US-09-935-464-2
                                                                                                                                                                                                                                                                                                                 Il number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                  2201672 seqs, 1661799599 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUMMARIES
                                                                                                                                                               US-09-836-392-8_COPY_22_2205
                                                                                                                                                                                                                                                                                                                                                                                                       -processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Published Applications NA:*
                                                              - nucleic search, using sw model
                                                                                                                                                                                                                                IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                     .mum DB seq length: 0
.mum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9025608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2184
1936.8
1936.8
1936.8
1840
477.6
                                                                                                                                                                 ect score:
                                                                                                                                                                                                                                  ing table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
                                                              ncleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         base:
                                                                                                                                                                                                 ence:
                                                                                                о
:
```

15 US-10-125-835-4 13 US-10-135-482-49 13 US-10-335-687A-3 13 US-10-335-687A-1 13 US-10-335-687A-1 13 US-10-335-687A-1 13 US-10-210-120-98 13 US-10-210-120-98 13 US-10-029-386-3322 14 US-10-056-961 15 US-10-056-961 15 US-10-056-961 15 US-10-056-961 15 US-10-056-961 15 US-10-156-761-13 15 US-10-156-761-13 16 US-10-156-761-13 17 US-09-96-84-33-10 18 US-09-749-956-3 19 US-09-749-956-3 10 US-09-749-956-3 11 US-09-749-956-3 12 US-10-156-761-1254 13 US-10-156-761-1254 14 US-10-156-761-1393 15 US-10-156-761-1254 16 US-10-156-761-1254 17 US-09-749-956-3 18 US-10-156-761-1254 19 US-09-749-36-3	9 US-09-823-039A-58 Sequence 58 13 US-10-029-386-17022 Sequence 11 13 US-09-955-99-45 Sequence 11 10 US-09-880-107-3691 Sequence 47 15 US-10-038-010-47 Sequence 47	ALIGNMENTS 392 09/836,392 800/28066 9,542 5,914 9,027	08; Pred. No. 0; Mismatch 0ccccccccargecca 1 0cccccccccargecca
ананананана наобанана	2003 2034 2034 2049 1100 1100 1100	on US, 458A1 al. al. Protei Antik Con 1000-10 MBER: MBER: MBER: 000-10 MBER: 000-10 MBER: 000-10 MBER: 000-10 MBER: 000-03	vative caccracas
		5-392-8 No. USZ002017445 No. USZ002017445 LANFORMATION: P. OF INVENTION: P	milarity Conser Conser TGCTGAGG
3 3 4	27778	Ge - 392 - 8 Ge - 8, Mo. US; N	2184 2184 22
0 0 11111111111111111111111111111111111	144444 14443 152444	RESULT 1 19.09-836-3 19.6-09-836-3 19.09-80-80-80-80-80-80-80-80-80-80-80-80-80-	Best Loc Matches Oy Db
		· ·	

des,

61 GCCAGCATGCTGCACGCGCTGCAGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATC 120

ઠ Q

lon Dec 15 08:33:51 2003

5146

1260

1320

1380 5386

```
GAGACCTCATGAGGTGCAGAGGATGTCCTGCTGCTGGGATGAGGTGAGCTGCCAG
                                                                                                                                                                                                                                                                                                                                                                             CTCCAGGTCCAGAGATCCCTGTGGACAGCCACGAGGACCAGAAAATCTACATCTACACC
                                                                                                                                961 CTCAAGGGCATGTGCCCCTTAAACACACCCCAACAGGCCTTGGATACTCCAGCTGTCGTC
                                                                                                                                                                                       ACCTGCTTCTTGGCCGTGCCTGTTATTAAAAAGAATTCCTACCTGGTCTTAGCGGGCCTC
                                                                                                                                                                                                                                                                       5087 GCCGAIGGGCTIGIGGCTGTGTTTCCCGTGCTGCGGGCACCCCAAAGGACAGCTGCTCC
                                                                                                                                                                                                                                                                                                                       TACCTGTGCTCACACACACACACACACCCAAGTTCAGCATCGCGGATGAAGACGCACGG
                                                                                                                                                                                                                     -------adadricciacciritadedecede
                                                                                                                                                                                                                                                GCCGATGGGCTTGTGTTTTCCCGTGGTGCGGGGCACCCCAAAGGACAGCTGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TACCTGTGCTCACACACAGCCAACAGGTCCAAGTTCAGCATCGCGGATGAAGACGCACGG
                                                                                                                                                                                                                                                                                                                                                            CAGAACCCCTACCCAGTGAAGGCCATGGAGGTGGTCAACAGCGGCTCTGAGGTCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                    AGCAATGGGCCGGGCCTCCTTGTCATCGACTGTGCCTCCCTGGAGATCTGCAGGCGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                         5267 AGCAATGGGCCGGGGCCTCCTTGTCATCGACTGTGCCTCCCTGGAGATCTGCAGGGGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCCCTACATGGCCCCCTCCATGGTTACGTCAGTCGTGTGCAGCTCTGAGGGCAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5327 GAGCCCTACATGGCCCCCTCCATGGTTACGTCAGTCGTGTGCAGCTCTGAGGCAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGGAGGICGICTGGIGCCIGGAIGACAAGGCCAACTCCTTGGIGAIGIACCACTCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGAGGTCGTCTGGTGCCTGGATGACAAGGCCAACTCCTTGGTGATGTACCACTCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ccreaggggacrecareecgacgreagearcargracaggaggagggaggaggag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTGAGGGGGACTCCATCGCGGACGTCATGTACAGTGAGGAGCTGGCCACGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGTGCCTTTCTCCACCGACTGCAAGCTCAGACATGCTACATACGCCCGGTGCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCGTGCGGCCCTTGGACACGGAACCCCGGCAGCCACACACGCCAAAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCCTGATCCACCAGGAATCACTCACTGACTACTGCTCCATGTCCTCCTACTCCTCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCACCCCCCAGGCTGCCAGGTCCCCCTCAAGCCTCCCCAGCTCCCCAGCAAGTTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTGTGCCTTTCTCCACGACTGCGAGGACTCAGACATGCTACATACGCCCGGTGCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tecareagacardacerdacececardacegadagacerreagacagacera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGGCCGTGAAGATCCTCGCCGTCAGAGACCTCATTTGGGTCCCCAGGCGCGGGTGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGCCGTGAAGATCCTCGCCGTCAGAGACCTCATTTGGGTCCCCCAGGCGCGCGGTGGAGAT
                                                                                             4964
                                                                                                                                                                                        1021
                                                                                                                                                                                                                                                                                                                                5147
                                                                            901
                                                                                                     5024
                                                                                                                                                            5058
                                                                                                                                                                                                                   5058
                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1321
                                                                                                                                                                                                                                                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1861
                                                                                                                                                                                                            à
                                                                                               ద
                                                                                                                              8
                                                                                                                                                     g
                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                     4183
                                                                                                                                                                                                                                                                                                                                            4243
                                                                                                                                                                                                                                                                                                                                                                                                   4303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4903
                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               660
                                                                                                                                                                                                                                                                               ATGCTGAGGCACCTGCGGGCCACCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGAG
                                                                                                                                                                                                                                                                                                                                                                                      GCCAGCATGCTGCACGCTGCAGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATC
                                                                                                                                                                                                                                                                                                                                CACCCGCTCTGCTTCGCCCTGGAGCTCGCGCCTCAGCAGCCTCAACACCGTGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACCAGATCGCCTCGGGCCTGCCTGCACAAGAAAAAATCATCATCTTGTGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGTCGGACAACATTCTGGTGTGGTCCCTTGACGTCAAGGAGCACATCAACATCAAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGAACGCCAGAGATTCTTCCTTTATACCCCTGGGACACACATGCTCACCCAAAAAATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGAACGCCAGAGATTCTTCCTTTATACCCTGGGACACATGCTCACCAAAAAATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGGCGCCCTAGGCGTGGAGGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGAAGGTAGATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACTGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCGGTTCTGGGGCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGAAGTGCAGTTCCGGCGACTGCAGCGCTCATGATGGAGTGCTGGGACACTAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACACCGTGGTGTTTTGGGALTGGAAAAGAGGAGTCCAGGAACTACACGGTGGTGAACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCGGTTCTGGGGGCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGAACACTAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGAAGCGATGGCCCTGTCGGTGGTGAGCCAGATGAAGGACCCGACTTTTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGAAGCGACCGCTGGCCTGTCGGTGGTGAGCCAGAGGACCCGACCTTTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Trcardrateaacrerectereseaascascascerrerrerearceasescases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCATGTATGAACTGTGCTGTGGGAAGCAGACATCCTTCTTCTCATCCCAGGGCCCAGGAG
                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                   Length 7015,
                                                                                                                                                                                                                            2; Indels 117;
          APPLICANT: WEISS, BERTRAM
TITLE COF INVENTION: NEMBRANE RECEPTORS FOR STEROIDS AND STEROLS
FILE REFERENCE: SCH-181,
CURRENT APPLICATION NUMBER: US/10/132,382
CURRENT FILING DATE: 2002-04-26
NUMBER OF SEQ ID NOS: 26
SOFTWARE: Patentin Ver. 2.1
EQ ID NO 5
LENGTH: 7015
TYPE: DNA
CRGANISM: Homo sapiens
10-132-382-5
                                                                                                                                                                                                 DB 15;
                                                                                                                                                                                             88.7%; Score 1936.8;
94.6%; Pred. No. 0;
ive 0; Mismatches
                                                                                                                                                                                                          est Local Similarity 94.6 atches 2065; Conservative
ENERAL INFORMATION:
                                                                                                                                                                                                                                                                                4124
                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4364
                                                                                                                                                                                                                                                                                                                                                                                                                                                    4304
                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4844
                                                                                                                                                                                              nery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
```

1440

1560

5566

5626 1680 1740

5806

1800

4612 CCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGAAGGTAGATATG 4681 481 TTCTCCTATGGAATGGTCTTCTACGAGTTGCTCAGGCCCTGCACTGGGCCAC 540 482 TTCTCCTATGGAATGGTCTCTACGAGTTCTGTCAGCACACCTGCCCCACTGGGCCAC 471 541 CACCAGCTCCAGATTGCCAGAGTTGTCTAGTGGACACCTGCTGCTACTGGGGCCAC 471 542 CACCAGCTCCAGATTGCCAGAGTTGTCAGGGCACTCCCCCGGTTCTGGGGCACCAC 480 401 GAGGAAGTGCAGTTCCGGCGACTGCTCAGGGCATCTGGGGCACTCAGGCC 600 402 GAGGAAGTGCAGTTCCGGCGACTGCAGGCCTCATGATGGAGTCTGGGGCACTAAGCCA 680 661 GAGGAAGTGCAGTTCCGGCGACTGCAGGCCTCATGATGGAGTCTGGGGCACTAAGCCA 680 662 GAGGAAGTGCAGTTCCGGCGACTGCAGGCCTCATCAGTGGAGCCAGGACCAGGCACACTAAGCCA 680 663 GAGGAAGTGCAGTTCCGGCGACTGCAGGCCTCATCAGTCGCAGGCCACACACA	1021 ACCTGCTTCTTGGCCGTGGTTTATTAAAAGAATTCCTACTGGTCTTAGCGGGCCTC
8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6	8 4 8 4 8 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8
1921 GTTATCGTCATTGGCCTGGAGAAGGATTCTGAAGCCGGGGGCCGAGTCATTGCCGTC 1980 1921 GTTATCGTCATTGGCCTGGAGAAGGATTCTGAAGCCCAGCGGGGCCGAGTCATTGCCGTC 1980 1981 TTAAAAGCCCGAGAGAAGGATTCTGGCGCCCAGCGGGGCCGAGCGGGCCCAGCGGGCCCAGCGGGCCCAGCGGGCCCAGCGGGCCCAGCGGGCCCAGCGGGCCCAGCGGGCCCAAGCGCGCCCAAGCGCCCAGCGGCCCAAGCGCCCAGCGCGCCCAAGCGCCCCTGGCCCAAGCCCAAGACTCGTCGCCCTCGCCGCCCTCGCCCTCGCCCAAGCTGCCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCGCCCTCCT	atches Similarity 94.6%; Pred. No. 0; atches 2; Indels 117; Gaps 1; atches 2065; Conservative 0; Mismatches 2; Indels 117; Gaps 1; atches 2065; Conservative 0; Mismatches 2; Indels 117; Gaps 1; atches 2065; Conservative 0; Mismatches 2; Indels 117; Gaps 1; atches 2065; Conservative 0; Mismatches 2; Indels 117; Gaps 1; atches 2065; Conservative 0; Mismatches 2; Indels 117; Gaps 1; atches 2065; Conservative 0; Mismatches 2; Indels 117; Gaps 12; atches 2;

```
4457
                                                                                                                        4577
                                                                                                                                                                                                                                                                                   4757
                                                       CACCGCTCTGCTTCGCCCTGGAGCTCGGCCGCTCAGCAGCCCTCAACACCCGTGCTGTCC 4517
                                                                                                                                                 300
                                                                                                                                                              4578 TACCAGATCGCCTCGGGCTGGCCTACCTGCACAGAAAAACATCATCTTCTGTGACCTG 4637
                                                                                                                                                                                                                 4638 AAGTCGGACAACATTCTGGTGTGGTCCCTTGACGTCAAGGAGCACCATCAAGCTA 4697
                                                                                                                                                                                                                                                                                                                            4877
                                                                                                                                                                                                                                                                                                                                                                                                                                     4878 CACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGATCCGCCCGGTTCTGGGGCAGCCG 4937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5360
                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACCTGTGCTCACACACACACACACGTCCAAGTTCAGCATCGCGGATGAAGACGCACGG 1200
                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCAAGGGCATGTGCCCCTTAAACACACCCCAACAGGCCTTGGATACTCCAGCTGTCGTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCGATGGGCTTGTGGCTGTGTTTCCCGTGGTGCGGGGCACCCCAAAGGACAGCTGCTCC 1140
                                                                                                                                                                                                                                                                                                           CCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGAAGGTAGATATG 480
                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGAAGCGACCGTGGCCTGTCGGTGGTGAGCCAGATGAAGGACCCCGACTTTTGCCACC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCCAGGTCCAGAGATCCCTGTGGACAGCCACCGAGGACCAGAAAATCTACATCTACACC 960
TACCAGATCGCCTCGGGCCTGCCTGCACAAGAAAAAAATCATCTTCTGTGACCTG
                                       CACCCGCTCTGCTTCGCCCTGGAGCTCGCGCCCTCAGCAGCCTCCAACACGCTGCTGTCC
                                                                                                                                                                                                 301 AAGTCGGACAACATTCTGGTGGTCCCTTGACGTCAAGGAGCACATCAACGTA
                                                                                                                                                                                                                                                    361 TCTGACTACGGGATTTTCGAGGCAGTCATTGAGGGCGCCCTAGGCGTGGAGGCACT
                                                                                                                                                                                                                                                                       4698 TCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGGCCCCTAGGCGTGGAGGGCACT
                                                                                                                                                                                                                                                                                                                                                                TICTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACTGGGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                         CACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGGCCCGGTTCTGGGGCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4998 GAGAAGCGACCGCTGGCCCTGTCGGTGGTGGACCAGATGAAGGACCCCGACTTTTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TICATGIATGAACTGIGCTGTGCGAAGCAGACAGCCTTCTTCTTCATCCCAGGGCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5058 TTCATGTATGAACTGTGCGTGGGGAAGCAGACAGCCTTCTTCTTCTCCCAGGGCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TACACCGTGGTGTTTTGGGATGGAAAAGAGGAGTCCAGGAACTACACGGTGGTGAACACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5118 TACACCGTGGTGTTTTGGGATGGAAAAGAGGAGTCCAGGAACTACACGGTGGTGAACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGAAGGGCCTCATGGAGGTGCAGAGGATGTGCTGCCCTGGGATGAAGGTGAGCTGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGGGACACTAAAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------AGAATTCCTAGTCTTAGCGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCGATGGGCTTGTGGCTGTGTTTCCCGTGCGGGGCACCCCAAAGGACAGCTGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021 ACCTGCTTCTTGGCCGTGCCTGTTATTAAAAGAATTCCTACCTGGTCTTAGCGGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4458
              4398
                                         121
                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5301
              g &
                                                        g
                                                                                ð
                                                                                                              g
                                                                                                                                      8 8
                                                                                                                                                                                                                                                                         8 & 8
                                                                                                                                                                                             8 8 8
                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                      5704
                                                                                                                                                                                                                                                                                                                                                                                         2040
                                                                                                                                                                        1800
                                                                                                                                                                                                                                                      5944
                                                                                                                                                                                                                                                                                 1920
                                                                                                                                                                                                                                                                                                                                   1980
                                                                                                                                              5824
                                                                                                                                                                                                                                                                                                                                                              6064
                                                                                                                                                                                                                                                                                                                                                                                                                                            2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACACTGTTGTTGTGCACCTTTGAAAATGAAAACACAGAGTGGTGCTGGCCGTCTGGAGG 6184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCTGGGGCGCCAGGGAGTTCGACATTTTCTACCAGTCCTACGAGGAGCTGGGCGGCTG 2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4338 ATGCTGAGGCACCTGCGGGGCCACCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGGAG 4397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                      CCTGAGGGGGACTCCATCGCGGACGTGAGCATCATGTACAGTGAGGAGCTGGGCACGCAG
                                                                                                                                                                                                                                                                                                                                                                                  TTAAAAGCCCGAGAGCTGACTCCGCATGGGGTGGTGGTGGATGCTGCCGTGGTGGCAAAG
                                                                                                                                                                                                                                                                                                                                                                                                     TTAAAAACCCGAGAGAGTGACTCCGCATGGGGTGCTGGTGGATGCTGCCGTGGTGGTGGTAAAG
       ccrandegegeacrecarecegacereacereareracaeacaeageageageage
                                                          ATCCTGATCCACCAGAATCACTCACTGACTACTGCTCCATGTCCTCCTACTCCTCATCC
                                                                                                              CCACCCGCCAGGCTGCCCCCTCAAGCCTCCCCAGGTCCCCAAGTTCTTCC
                                                                                                                                       CCACCCCGCCAGGCTCCCCCTCAAGCCTCCCCAGCTCCCCAAGTTCTTCC
                                                                                                                                                                                   Grialderchiedecredadadearicheedeceadedeceadeceadicariedeceic
                                                                                                                                                                                                                                                                                                                                                                                                                                      GACACTGTTGTGTGCACCTTTGAAAATGAAAACACAGAGTGGTGCCTGGCCGTCTGGAGG
                                                                                    ATCCTGATCCACCAGGAATCACTCACTGACTACTGCTCCATGTCCTCCTACTCCTCATCC
                                                                                                                                                                                                                                                                            CAGGCCGTGAAGATCCTCGCCGTCAGAGACCTCATTTGGGTCCCCAGGCGCGGTGGAGAT
                                                                                                                                                                                                                                                                                                CAGGCCGTGAAGATCCTCGCCGTCAGAGACCTCATTTGGGTCCCCAGGCGCGGGAGAT
                                                                                                                                                                                                                                                                                                                                 GTATCGTCATTGCCTGGAGAATTCTGAAGCCCAGCGGGGCCGAGTCATTGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 GCCAGCATGCTGCACGCGTGCAGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 ATGCTGAGGCACCTGCGGGCCACCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Indels 117; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 7229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STEROIDS AND STEROLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1936.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGGCTTGCACTCGCAAGAGG 2184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGGCTTGCACTCGCAAGAGAGG 6268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ery Match
st Local Similarity 94.6%;
tches 2065; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Homo sapiens
0-132-382-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q ID NO 7
LENGTH: 7229
        1561
                                 5645
                                                                                      5705
                                                            1621
                                                                                                               1681
                                                                                                                                         5765
                                                                                                                                                                  1741
                                                                                                                                                                                            5825
                                                                                                                                                                                                                       1801
                                                                                                                                                                                                                                                 5885
                                                                                                                                                                                                                                                                                                      5945
                                                                                                                                                                                                                                                                           1861
                                                                                                                                                                                                                                                                                                                                 1921
                                                                                                                                                                                                                                                                                                                                                         6005
                                                                                                                                                                                                                                                                                                                                                                                    1981
                                                                                                                                                                                                                                                                                                                                                                                                              6065
                                                                                                                                                                                                                                                                                                                                                                                                                                        2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6245
```

Ion Dec 15 08:33:51 2003

; Sequence 3, Application US/10132382; ; Publication No. US20030045699A1 ; GENERAL INFORMATION: ; APPLICANT: WEISS, BERTRAM ; TITLE OF INVENTION: MEMBRANE RECEPTORS FOR STEROIDS AND STEROLS ; FILE REFERENCE: SCH-1811 ; CURRENT APPLICATION NUMBER: US/10/132,382 ; CURRENT FILING DATE: 2002-04-26 ; SOFTHARE: PALENTING DATE: 2.002-04-26 ; SOFTHARE: PALENTING DATE: 2.1 ; SEQ ID NO 3 ; LENGTH: 7307 ; TYPE: DAA ; ORGANISM: Homo sepiens US-10-132-382-3	Query Match 88.7%; Score 1936.8; DB 15; Length 7307; Best Local Similarity 94.6%; Pred. No. 0; Matches 2065; Conservative 0; Mismatches 2; Indels 117; Gaps 1; QY 1 ATGCTGAGGACCTGCGAGCGACCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGGAGGG 60 Db 4416 ATGCTGAGGACCTGCAGCACCCATGAAGAACTTCTCCGAGTTCCGGCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG	181 GAGAACGCCAGAGATTCTTCTTTATACCCCTGGGACACATGCTCACCCAAAAATAGCCCTGGGACACATGCTCACCCAAAAAATAGCCCTGGGACACATGCTCACCCAAAAAATAGCCCCAGAAAAATAGCCCCAGAAAAAAAA	361 TCTGACTACGGGATTTCGAGGCACTCCATCGGGGGGCCCCTAGGCGTGGAGGCCACT	4956 CACCAGCTCCAGATTGCCAAGAGCTGTCCAAGGGCATCCCCCGCTTTTGGGGCACCCG 800 4956 CACCAGCTCCAGATTGCCAAGAGCTGTCCAAGGGCATCCGCCCGGTTTTGGGGCAGCCG 8015 601 GAGGACTCCAGATTGCCAAGAGCTGCAAGGGCATCCGCCCGGTTTTGGGGCAGCCG 5015 5016 GAGGACTGCAGTTCCGCCGACTGCAGGCCTCATGATGCAGGCACTTAGCCCA 660 601 GAGGAGTGCAGTTCCGCCAGTGCAGCCCTCATGATGCAGGCACTTTTGCCACC 5005 602 GAGGAGCGACCGCTGCCGACTGCAGTGGTGGTGAGTGAAGGACCCGACTTTTGCCACC 720 603 GAGAAGCGACCGCTGCCGTGGCGTGGTGGTGAAGGACCCGACTTTTGCCACC 5135 604 GAGAAGCGACCGCTGGCCTGTCGGTGGTGATGAAGGACCCGACTTTTGCCACC 5135 605 GAGAAGCGACCGTGGCCTGTCGGCAAGCCAGATCTTCTCATCCCACGGCCAGGAG 780 721 TTCATGTATGAACTGTGCTGTGGGAAGCAGACCTTCTTCTCATCCCAGGGCCAGGAG 780 721 TTCATGTATGAACTGTGCTGTGGGAAGCAGCCTTCTTCTCATCCCAGGGCCAGGAG 780 722 TTCATGTATGAACTGTGCTGTGGGAAGCAGACCTTCTTCTCATCCCAGGGCCAGGAG 780 723 TTCATGTATGAACTGTGCTGTGGGAAGCAGACCCTTCTTCTCATCCCAGGGCCAGGAG 780 724 TACACCGTGGTGTTTGGGAAGCAGACCGCTTCTTCTCTCCCAGGGCCAGGAG 780 725 TTCATGTATGAAGACGAGAAGCAGACCCTTCTTCTCTCACCCCAGGGCCAGGAG 780 726 TTCATGTATGAAGACGAAGCAGAAGCAGACCCTTCTTCTCTCACCCCAGGGCCAGGAG 780 727 TTCATGTATGAACTGTGCTGTGGGAAACCAGACCCTTCTTCTCACCCCAGGGCCAGGAG 780 727 TTCATGTATGAACTGTGCTGTGGGAAGCCAGTCTTCTTCTCACCCCAGGGCCAGGAG 780 728 TTCATGTATGAACTGTGCTGTGGAAACCAGACCCTTCTTCTCACCCCAGGGCCAGGAG 780 729 TTCATGTATGAACACTGTGCTGTGGAAACCAGACCCTTCTTCTCACCCCAGGGCCAGGAG 780 77 TTCATGTATGAACACTGTGCTGTGGAAACCACCCTTCTCTCTC
1201 CAGAACCCAACCAACCAGTCAACAGTTCAGCATCGCGGATGAAGACGCACGG	1441 ACCTACAGGGGCCTGGATGACAGCCAACTCCTTGGTGATGTTCTCCCCCCCC	ATCCTGATGCCCCGCCAGGATCACTCACTGCTCCATGTCCTCTACTCCTCATCC CCACCCGCCAGGAATCACTCACTGACTACTGCTCCATGTCCTCATCC CCACCCGCCAGGCTGCCAGGTCCCCCTCAAGCCTCCCCAGGAAGTTCTTCC CCACCCGCCAGGCTGCCAGGTCCCCCTCAAGCCTCCCAGCTCCCCAGGAAGTTCTTCC AGTGTGCCTTTCTCCACGACTGCGAGGACTCAGACATGCTACAACACGCCGGTGCTGCC AGTGTGCCTTTCTCCACCGACTGCGAGGACTCAGACATGCTACATACGCCCGGTGCTGCC AGTGTGCCTTTCTCCACCGACTGCGAGGACTCAGACATGCTACATACGCCCGGTGCTGCC TCCGACAGGTTTCACCCCATGCAACCCCCAATGGACGGGAAACCTTCAGCCAGGACCTG TCCGACAGGACTTTCACCCCCAACCCCCAATGGACGGGAAACCTTCAGCCAGGACCTG TCCGACAAGGATCTTGACCTGAACCCCCAATGGACGGGAAACCTTCAGCCAGGACCTG TCCGACAAGGATCTTGACCTGAACCCCCCAATGGACGGGAAACCTTCAGCCAGGACCTG TCCGACAAGGACTTTGACCCCCAACCCCCAATGGACGAGAACCTTCAGCCAGGACCTG TCCGACAAGACTTTCACCCCCAACCCCCAATGGACGAGAACCTTCAGCCAGC	TCCGACAGGTCTGAGCATGACCCCCATGAGGGGGGAGACCTTCAGCCAGC	2041 GACACTGTGTGTGCACCTTTGAAAATGAAAAAAAAAAAA

Db 6159 CAGGCCGTGAAGATCCTCGCCGTCAGAGCCTCATTTGGGTCCCCAGGCGGGGGAT 6218 Qy	Qy 1981 TTABAAGCCGAAGCTGACTCGCATGGGGTGCTGCTGCTGCTGCTGGTAGCAAG 2040 Db 6279 TTABAAGCCCGAGAGCTGACTCCGCATGGGTGCTGGTGGTGCTGGTGGTGGTAGCAAG 6338 Qy 2041 GACACTGTTGTGTGCACCTTTGAAAATGAAAAACACAGAGTGGTGCTGGCCGTCTGGAGG 2100 Db 6339 GACACTGTTGTGTGCACCTTTGAAAATGAAAAACACAGAGTGGTGCTGGCCGTCTGGAGG 6398	Qy 2101 GGCTGGGGCCAGGGACTTCGACATTTTCTACCAGTCCTAGGAGCTGGGCCGGCTG 2160 Db (3399 GGCTGGGGCCAGGGAGTTCGACATTTTCTACCAGTCCTACGAGGAGCTGGGCCGGCTG 6458 Qy 2161 GAGGCTTGCACTCGCAAGAAGG 2184 Db 6459 GAGGCTTGCACTCGCAAGAAGG 6482	RESULT 6 US-10-094-749-50 ; Sequence 50, Application US/10094749 ; Publication No. US20330219741A1 ; GENERAL INFORMATION: ; APPLICANT: ISCGAI, TAKAO ; APPLICANT: SUGIYAMA, TOMOYASU		APPLICANT: NAGAI, KEIICHI APPLICANT: TRIE, RYOTARO APPLICANT: TAMBGHIKA, ICHIRO APPLICANT: SEKI, NAOHIKO APPLICANT: SOSHIKANA, TSUTOMU APPLICANT: OSSHIKANA, TSUTOMU APPLICANT: OTSUKA, MOTOVUKI APPLICANT: NAGAHARI, KENJI	; APPLICANT: MASUHO, YASUHIKO ; TITLE OF INVENTION: NOVEL FULL-LENGTH CDNA ; FILE REFERENCE: 084335/0160 ; CURRENT APPLICATION NUMBER: US/10/094,749 ; CURRENT FILING DATE: 2002-03-12 ; PRICR APPLICATION NUMBER: 60/350,435	PRIOR FILING DATE: 2002-01-24 ; PRIOR APPLICATION NUMBER: JP 2001-328381 ; PRIOR FILING DATE: 2001-09-14 ; NUMBER OF SEQ ID NOS: 3381 ; SOFTWARE: Patentin Ver. 2.1 ; SEQ ID NO 50) ORGANISM: Homo sapiens US-10-094-749-50 Query Match 84.2%; Score 1840; DB 13; Length 3112; Best Local Similarity 99.9%; Pred. No. 0:	1851; Conservative 0 333 CGTCAAGGAGCACATCAACA 	QY 393 TGAGGCGCCCTAGGCGGCACTCCTGGCTACCAGGCCCCAGAGATCAGGCCTCG 452
	CTCCAGGTCCAGAGATCCCTGTGAACACCGCGAGGACCAGAAAATCTACATCTACACCCCTTCAGACCCGAGGACCAGAAAATCTACATCTACACCCCTTCAGAGCCCCCGAGGACCAGGAGCCCCGAGGAAAATCTACATCTACACCCCCAGGCCTTGGAAAATCTACATCTACACCCCAACAGGCCTTGGATACTCCAGCTGTCGTCCTCCAACGGCCTTGGATACTCCAGCTGTCGTC	1021 ACCTGCTTCTTGGCCGTGCCTGTTATAAAAGAATTCCTACCTGGTCTTAGCGGGCCTC	1141 TACCTGTGCTCACACACACACACACTCCAAGTTCAGCATCGCGGATGAAGACGCAGCG 1200	1261		CCCGTGGGGCCCTTGGACACGGGAGCCCCCCAGCCCCCTCAGGGACATGTTT CCCGTGCGGCCCTTGGACACGGGAACCCCGGGAGCCAGCC	5859 CCTGAGGGGACTCCATCGCGACGTGAGTGACATCATGTACAGCTGGCCACGG 1820 5859 CCTGAGGGGACTCCATCGCGACGTGAGTACATCATGTACAGGAGAGCTGGGCACGCAG 5918 1621 ATCCTGATCCACAGGAATCACTCACTCACTACTCCTCCTACTCCTCCTATCC 1680 5919 ATCCTGATCCACGAGAATCACTCACTGACTACTCCTCCTCCTACTCCTATCC 5978	1681 CCACCCGGCCAGGCTGCCAGGTCCCCTCAAGCCTCCCCAGCTCCCCAGCAAGTTCTTCC 1740 5979 CCACCCGCCAGGCTGCCAGGTCCCCTCAAGCCTCCCCAGCAAGTTCTTCC 6038 1741 AGTGTGCCTTTCTCCACCGAGGTCGCAGAGACTAGAGACTACCCCCAGCAAGTTCTTCC 6038	6039 AGTGTGTTTCTCTCTCTCTCTCTCTCTAGACATGTCTAGTTTTTTTT	SGAGAT

1533 AGCCACCACACACACACACAACCACAACCACAACCACACCACA	RESULT 7 US-10-1925-10 Sequence 10, Application US/10121925 Sequence 10, Application US/10121925 Publication No. US20030104505A1 Sequence 10, Application No. US20030104505A1 SERNATION: REITH E. TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE AND TITLE OF INVENTION: PHOSPHATASE HOMOLOGUES AND USES THEREFOR CURRENT FILING DATE: 2002-04-12 PRIOR APPLICATION NUMBER: US/10/121,925 PRIOR FILING DATE: 1999-06-31 PRIOR PELING DATE: 1999-06-31 NUMBER OF SEQ ID NOS: 18 SOFTWARE: PREFETTIN Ver. 2.0 SOFTWARE: DAA CREANISM: Homo sapiens FEATURE: OTHER INFORMATION: All occurences of n indicate any nucleotide US-10-121-925-10 Query Match Best Local Similarity 98:5%; Score 477.6; DB 15; Length 526; Best Local Similarity 98:5%; Pecc. No. 2:1e-124; Matches 513; Conservative 0; Mismatches 5; Indels 3; Gaps
CATTGTATATGATGAGAAGGTAGATATGTTCTCCTATGGAATGGTGCTCTACGAGTTGCT	1113 GCGGGGCACCCCAAAGGACAGCTCCTACCTGTGCTCACACACCACCACCAACAGGTCCAA 1172

თ

```
202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   284 TCCCGTACATCGTGATGGAGCTGGTCGAGGCCGCACCATCCGCGACCTGCTGCTCAACG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTACCTGCACAAAAAAAAATCATCTTGTGACCTGAAGTCGGACAACATTCTGGTGT 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ceraeredeacacadeares de consecuencia de la consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 503 ACGAGTIGCTGTCAGGACAGCGCCCTGCACTGGGCCACCACCAGGTTGCCAAGA 562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     563 AGCTGTCCAAGGGCATCCGCCCGGTTCTGGGGCAGCCGGAGGTGCAGTTCCGGCGAC 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              704 AGCACGTGCAGGACATCCCGGTGCCCCCGTCCGAGGTCGCGGAAGGGGCGCCGCCGCCGAGC 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      644 Accharcerecerececececececes are accessored and accessored and accessored and accessored accessored and accessored accessored and accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored accessored
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCAGGCGCTCATGATGGAGTGCTGGGACACTAAGCCAGAGAAGCGACCGCTGGCCCTGT 682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  764 icgacigacidaridescrescrescasasarices arcescias respectados es 33
                                                                                                                                                                                                                                                                               Accaccarcagades de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante
                                                                                                                                                                      AGCACCCTGCATCGTGGCGCTCATCGGCATCAGCATCCACCCGCTCTGCTTCGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                    143 AGCTCGCCCCCTCAGCAGCCTCAACACCGTGCTGTCCGAGAACGCCAGAGATTCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTATACCCCTGGGACACATGCTCACCCAAAAATAGCCTACCAGATCGCCTCGGGCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTCATTCCATGAGGGGGCGCCTAGGCGTGGAGGGCACTCCTGGCTACCAGGCCCCAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           323 GGTCCCTTGACGTCAAGGAGCACATCAAGATATCTAACTACGGGATTTCGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          464 cécadaacégrécégréakágrékigeadridegeargegegegegegegege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              524 AGTCGACGATGACGCAGACCGGCATGGTCATGGCACACGCCGCAGTACCTCTCGCCCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             443 TCAGGCCTCGCATTGTATATGATGAGAAGGTAGATATGTTCTCCTATGGAATGGTGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  584 AGGCGCTCGGAAAGGCGGTCGACCACCGCAGCGACCTGTACGCGACCGGTTGCCTGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: OMURA, SATOSHI
APPLICANT: IKEDA, HARUO
APPLICANT: ISHIKAWA, JUN
APPLICANT: SHIKAWA, JUN
APPLICANT: SHIRA, TADAYOSHI
APPLICANT: SHIBA, TADAYOSHI
APPLICANT: SHIBA, TADAYOSHI
APPLICANT: SAKAKI, YOSHIYUKI
APPLICANT: SAKAKI, WASAHIKA
ITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-262
CURRENT APPLICATION NUMBER: US/10/156,761
CURRENT FILING DATE: 2002-05-29
PRIOR PILING DATE: 2001-05-30
PRIOR FILING DATE: 2001-05-30
PRIOR FILING DATE: 2001-05-30
PRIOR FILING DATE: 2001-06-30
PRIOR FILING DATE: 2001-06-30
PRIOR FILING DATE: 2001-08-02
NUMBER OF SEQ ID NOS: 15109
SEQ ID NO: 15000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Streptomyces avermitilis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 1, Application US/10156761; Publication No. US20030119018A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        683 CGGTGGTGAGCCAGATG 699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             824 AGGAGATGCGCGGGCTG 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                623
                                                                                                                                                                ò
                                                                                                                                                                                                                                                                         쉱
                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             심
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                          349 AACAICAAGCTAICTGACTACGGGATTICGAGGCAGTCATTCCATGAGGGGGCCCTAGGC 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GIGGAGGCACTCCTGGCTACCAGGCCCCCAGAGATCAGGCCTCGCATTGTATATGATGAG 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           485
                                                                                            6 TCGGGTGACCTGAAGTCGGACACATTCTGGTGTGGTCCCTTGACGTCAAGGAGCACATC 65
            289 ITCTGTGACCTGAAGTCGGACAACATTCTGGTGTGGTCCCTTGACGTCAAGGAGCACATC
                                                                                                                                                                                                                                                                                                                          66 AACATCAAGCTATCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGGCGCCCTAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCACTGGGCCACCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAAGGGCATCCGCCCGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCACTGGGCCACCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGCATCCGCCCGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGGGGCAGCCGGAGGAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGGAGTGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              306 CTGGGGCAGCCGGAGGAAGTGCAGTTCCGGCGACTGCAGGCGCTCATGATGATGGAGTGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACACTAAGCCAGAGGGACGGCTGGCCCTGTCGGTGGTG-AGCCAGATGAAGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         366 GACACTAAGCCAGAGAAGCGACTGGCCCTGTCGGTGGTGAAGCCAGATGAAGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTITIGCCACCITCATGTATGAACIGIGCIGIGGGAAGCAGACAGCCTTCTTC-TCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            426 GACTITIGCCACCTICATGTATGAACTGTGCTGTGGGAAGCAGACAGCCTTCTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGGTAGATATGTTCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23 CCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGGAGGCCAGCATGCTGCACGCGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ery Match
2.9%; Score 64.2; DB 15; Length 1497;
st Local Similarity 43.4%; Pred. No. 1.1e-07;
tches 294; Conservative 0; Mismatches 383; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 767 CCCAGGGCCAGGAGTACACCGT-GGTGTTTTGGGATGGAAA 806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                486 NCCAGGGCCAGGAGTACACTGTGGGTGTTTTGGGATGGAAA 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                quence 4356, Application US/10156761
blication No. US20030119018A1
NBEAL INFORMATION:
NPPLICANT: OWURA, SATOSHI
NPPLICANT: ISHIRAMA, UNN
NPPLICANT: ISHIRAMA, UNN
NPPLICANT: SHIBA, TADAYOSHI
NPPLICANT: SHIBA, TADAYOSHI
NPPLICANT: SHIBA, TADAYOSHI
NPPLICANT: SHIBA, TADAYOSHI
NPPLICANT: SAKAKI, YOSHIVKI
NPPLICANT: SAKAKI, YOSHIVKI
NPPLICANT: MASAHIRA
ITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
TURE REFERRENCE: 249-262
TURRENT APPLICATION NUMBER: US/10/156,761
UNRRENT FILING DATE: 2002-05-29
RIOR FILING DATE: 2001-05-30
RIOR PEPLICATION NUMBER: UF 2001-272697
RIOR PELING DATE: 2001-08-02
UMBER OF SEQ ID NOS: 15109
LENGTH: 1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Streptomyces avermitilis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: (1)..(1497)
0-156-761-4356
```

589

409

469

529 246 649

```
Query Match
Best Local Similarity 51.8%;
Matches 130; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ) TYPE: DNA
; ORGANISM: Eucalyptus grandis
US-10-101-464A-149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                513 GICAGGACAGC 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        298 GTGTGCAAGGC 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 2218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-820-790-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-820-790-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ⋩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5352016 TCCCGTACATCGTGATGGAGCTCGAGGCCGCACCATCCGCGACCTGCTGCTCAACG 5352075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5352015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5352195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5352256 AGTCGACGATGACGCAGACCGGCATGGTCATGGGCACCCCCGCAGTACCTGTCGCCCGAGC 5352315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5352436 AGCACGTGCAGGACATCCCGGTGCCCCCGTCCGAGGTCGCGGAAGGGGCGCCGCCGGAGC 5352495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5352496 rcsácsoacricaricáris de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos de contractos d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5352255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VPPLICANT: Strabala, Timothy
VPPLICANT: Strabala, Timothy
VPPLICANT: Misuwenhuizen, Nicolaas
VPPLICANT: Higgins, Colleen Nicolase
VPPLICANT: Higgins, Colleen Nicolated from Plant Cells
FITE OF INVENTION: Compositions Isolated from Plant Cell Signaling
FILE REFERENCE: 11000-1020c2
JURRENT APPLICATION NUMBER: 105/10/10/464A
JURRENT FILING DATE: 2002-03-18
*RIOR APPLICATION NUMBER: 09/704,302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCACCCCTGCATCGTGGCGCTCATCGGCATCAGCATCCACCCGCTCTGCTTTCGCCCTGG 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTACCTGCACAAGAAAAAATCATCTTGTGAGCCTGAAGTCGGACAACATTCTGGTGT 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCAGGCGCTCATGATGGAGTGCTGGGACACTAAGCCAGAGAAGCGACCGCTGGCCCTGT 682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5351956 ACCACCATGCGGTCGTCGCGTGTACGACTCCGGCGAGGACGTCGTCGGGCACTCCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                203 TTATACCCCTGGGACACATGCTCACCCAAAAATAGCCTACCAGATCGCCTCGGGCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5352136 CCTACTCGCACCACCACCATCGTGCACCGCGACATCAAGCCGGCCAACGTCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                      23 CCGATGCCATGAAGAACTTCTCCGAGTTCCGGCAGGAGGCCAGGATGCTGCACGCGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           143 AGCTCGCCCCCCCCAGCAGCCTCAACACCGTGCTGTCCGAGAACGCCAGAGATTCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                323 GGTCCCTTGACGTCAAGGAGCACATCAACATCAAGCTATCTGACGAGTTTTCGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACGAGITGCTGTCAGGACAGCGCCCTGCACTGGGCCACCACCAGCTCCAGATTGCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          383 AGTCATTCCATGAGGCGCCCTAGGCGTGGAGGGCACTCCTGGCTACCAGGCCCCAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          443 TCAGGCCTCGCATTGTATATGATGAAGGTAGATATGTTCTCCTATGGAATGGTGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5352316 AGGCGCTCGGAAAGGCGGTCGACCACCGCAGCGACCTGTACGCGACCGGTTGCCTGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    563 AGCTGTCCAAGGGCATCCGCCCGGTTCTGGGGCAGCCGGAGGAAGTGCAGTTCCGGCGAC
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                          Length 9025608;
                                                                                                                                                                                                                            Score 64.2; DB 15; Length
Pred. No. 1.4e-06;
0; Mismatches 383; Indels
NAME/KEY: misc_feature
LOCATION: (4187715)
10-156-761-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JLT 10
10-101-464A-149
squence 149, Application US/10101464A
blication No. US20030046728A1
SNERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5352556 AGGAGATGCGCGGCTG 5352572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    683 CGGTGGTGAGCCAGATG 699
                                                                                                                                                                                                                                 uery Match 2.9%;
est Local Similarity 43.4%;
atches 294; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          263
```

```
29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAGCAGACCATTATACACCGCGACATGAAGACCACCAACATCCTGCTCGACGAGAGTG 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          333 CGTCAAGGAGCACATCAACATCAAGCTATCTGACTACGGGGATTTCGAGGCAGTCATTCCA 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             118 gárraccaaderercegaerricegetrercegaeregegecegaetregererege 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        393 TGAGGGCGCCCTAGGCGTGGAGGCCACTCCTGGCTACCAGGCCCCCAAGATCAGGCCTCG 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               178 ccacárcaccaccarcardadocacacerroderiacerodarecadarecades 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 238. CCAGCAGCTGACTGACAAGTCCGACGTGTACTCCTTCGGGGTGGTGCTATTCGAGGTGCT 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300 GAAGTCGGACAACATTCTGGTGTGTCCCTTGACGTCAAGGAGCACATCAACATCAAGCT 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    672 caacccocaaccrocincincroccaaccaacaaccaccacacaaaacccacrocacaaaacccacaa 731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360 ATCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGGCGCCCTAGGCGTGGAGGCGAC 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/09820790
| Sequence 1, Application US/09820790|
| Publication No. US2030140354A1
| GENERAL INFORMATION: US2030140354A1
| APPLICANT: SHAO, Wei et al. |
| TITLE OF INVENTION: ESCLAYED HUMAN KINASE PROTEINS, AND TITLE OF INVENTION: THEREOF ENCOPING HUMAN KINASE PROTEINS, AND TITLE OF INVENTION: THEREOF INVENTION: THEREOF INVENTION: THEREOF INVENTION: UNDERSE: US/09/820,790 |
| CURRENT PILING DATE: 201-03-30 |
| NUMBER OF SEQ ID NOS: 4 |
| SOFTWARE: FastsEQ for Windows Version 4.0 |
| SED ID NO. |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          453 CATTGTATATGATGAGAAGGTAGATATGTTCTTCCTATGGAATGGTGCTCTACGAGTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240 CTACCAGATCGCCTCGGGCCTGGCCTACCTGCACAGAAAAACATCATCTTGTGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      612 CCAGCAGATCCTGGAGGCCGTTCTCCATTGTCACAAATGGGGGTCGTCCACAGAGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 515;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 57.4; DB 15; Length
Pred. No. 7e-06;
0; Mismatches 121; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
2.5%; Score 55; DB 13; Length 22
Best Local Similarity 48.0%; Pred. No. 5.1e-05;
Matches 157; Conservative 0; Mismatches 170; Indels
PRIOR FILING DATE: 2000-11-01
PRIOR APPLICATION NUMBER: 09/228,986
PRIOR FILING DATE: 1999-01.12
PRIOR FILING DATE: 1999-11-01
PRIOR FILING DATE: 1999-11-01
PRIOR FILING DATE: 2000-01-11
NUMBER OF SEQ ID NOS: 989
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 149
```

```
APPLICANT: Meyer, Joanne
APPLICANT: Meyer, Joanne
APPLICANT: Barrington-Martin, Rory
APPLICANT: Barrington-Martin, Rory
APPLICANT: Barrington-Martin, Rory
APPLICANT: Barrington-Martin, Alexandra
APPLICANT: Alexandra
APPLICANTON: METHODS AND COMPOSITIONS FOR DIAGNOSING AND TREATING NEUROPSYCHI
TITLE OF INVENTION: DISORDERS SUCH AS SCHIZOPHRENIA
FILE OF INVENTION: DISORDERS SUCH AS SCHIZOPHRENIA
CURRENT APPLICATION NUMBER: US, 09/935, 464
CURRENT APPLICATION NUMBER: US 09/757,300
PRIOR FILING DATE: 2001-01-09
PRIOR FILING DATE: 2001-01-09
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             432 AAAGCCCGAAAACCTGCT----TTACCTTACCCCTGAAGAACTCTAAGATCATGAT 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360 ATCTGACTACGGGATTTTCGAGGCAGTCATTCCATGAGGCGCCCCTAGGCGTGGAGGGCAC 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            486 CACTGACTTTGGTCTGTCCAAGATGGAACAGAATGGCATCATGTCCACTGCCTGTGGGAC 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420 TCCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGAAGGTAGATAT 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 546 CCCAGGCTACGTGGCTCCAGAAGTGCTGGCCCAGAAACCCTACAGCAAGGCTGTGGATTG 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  606 crosriccarcoscencarceaceratarracererosaracececearreraraasa 665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2, Application US/10125835
Publication No. US20030092019A1
Publication No. US20030092019A1
Publication No. US20030092019A1
APPLICANT: Meyer, Joanne
APPLICANT: Barrington-Martin, Rory
APPLICANT: Parker, Alexander
ITILE OF INVENTION: METHODS AND COMPOSITIONS FOR DIAGNOSING AND TREATING
ITILE OF INVENTION: NEUROPSYCHIATRIC
ITILE OF INVENTION: DISORDERS SUCH AS SCHIZOPHRENIA
FILE REFERENCE: 3322/AP702 USO
CURRENT APPLICATION NUMBER: US/10/125,835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240 CTACCAGATCGCCTCGGGCCTGCCTACCTGCACAGAAAACATCATCTTCTGTGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ccaecaecacrescaereaanaceracareaeaanaeeareaeaaareecareereaeaeaearr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300 GAAGTCGGACAACATTCTGGTGTGTCCCTTGACGTCAAGGAGCACATCAACATCAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480 GITCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACTGGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540 CCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGC 576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 666 AACGGAGTCTAAGCTTTTCGAGAAGATCAAGGAGGGC 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.5%; Score 54.2; DB 11;
49.9%; Pred. No. 7.4e-05;
cive 0; Mismatches 163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 54,2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: U8/09/757,300
PRIOR FILING DATE: 2001-01-09
NUMBER OF SEQ ID NOS: 50
SOFTWARE: Patentin version 3.0
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              168; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-935-464-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-125-835-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PEDICANT: Blan Pharmaceutical Technology

PPLICANT: Blan Pharmaceutical Technology

PPLICANT: D'Mahony, Daniel J.

PPLICANT: Brayden, David

PPLICANT: Lambkin, Dardh

PPLICANT: Lambkin, Imela

PPLICANT: Lambkin, Imela

PPLICANT: Higgins, Liea

TITLE OF INVENTION: Compositions Targeting Peyer's Patches and M Cells and Methods and

TITLE OF INVENTION: Compositions Targeting Peyer's Patches and M Cell Receptors

TITLE REFERENCE: E1067/20087

TITLE NEFERENCE: 2002-10-04

TOMBER OF SEQ ID NOS: 349

OFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ccaddadariccroxadeccerrerecarrereacaecaaareecereereacadadaderi 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300 GAAGTCGGACAACATTCTGGTGGTCCCTTGACGTCAAGGAGCACATCAACATCAAGGT 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         457 CAAGCCGGAGAACCTGCTTCTGGCCAGCAAGTGCAAAGGGGGCTGCAGTGAAGCTGGCAGA 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360 ATCTGACTACGGGATTTTCGAGGCAGTCATTCCATGAGGCGCCCCTAGGCGTGGAGGGCAC 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               circiaciona de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de construcción de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATATGATGAAGGTAGATAT 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         577 ACCAGGCTACCTGTCCCCTGAGGTCCTTCGCAAAGAGGCGTACGGCAAGCCCGTGGACAT 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   732 CTTCGGCCTAGCTATCGAGGTGCAGGGACCAGCAGCCATGGTTTGGTTTCGCTGGCAC 791
                                                                                                                                TCCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATATGATGAGGAAGGTAGATAT 479
                                                                                                                                                                                                                   792 accadectácererecereaderecereceaagagagagagagagacaagecereregagar 851
                                                                                                                                                                                                                                                                                                      480 GITCTCCTATGGAATGGTGCTCTACGAGTTGCTGTCAGGACAGCGCCCTGCACTGGGCCA 539
                                                                                                                                                                                                                                                                                                                                                                                        480 GITCICCTAIGGAAIGGIGCTCTACGAGITGCTGTCAGGACAGCGCCCTGCACTGGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 54.6; DB 13; Length 1825;
Pred. No. 6.2e-05;
1; Mismatches 170; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540 CCACCAGCTCCAGATTGCCAAGAAGCT 566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ggaccadcadagcrgraccadcadar 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540 CCACCAGCTCCAGATTGCCAAGAAGCT 566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       912 GGACCAGCACAGCTGTACCAGCAGAT 938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 quence 321, Application US/10116275
blication No. US20030211476A1
NERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ur 13
9-935-464-2
quence 2, Application US/09935464
blication No. US20030027153A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ery Match 2.5%; st Local Similarity 47.7%; tches 156; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ID NO 321
SNGTH: 1825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0-116-275-321
                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
```

```
ద
                                                 õ
                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Meyer, Joanne
APPLICANT: Meyer, Joanne
APPLICANT: Barrington-Martin, Rory
APPLICANT: Barrington-Martin, Rory
APPLICANT: Barrington-Martin, Rory
APPLICANT: Barrington-Martin, Rory
TITLE OF INVENTION: DISORDERS SUCH AS SCHIZOPHRENIA
FILE REPERENCE: 3322/14702 US1
CURRENT APPLICATION NUMBER: US/09/935,464
PRIOR APPLICATION NUMBER: US 09/757,300
PRIOR PLILNG DATE: 2001-01-09
NUMBER OF SEQ ID NOS: 90
NUMBER OF SEQ ID NOS: 90
SOPTHARE: Patentin Version 3:0
LENGTH: 1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420 TCCTGGCTACCAGGCCCCAGAGATCAGGCCTCGCATTGTATGATGATGAAGGTAGATAT 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480 GTTCTCCTAIGGAAIGGTCTCTACGAGTIGCTGTCAGGACAGCGCCCTGCACTGGGCCA 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              563 CCCAGGCTACGTGGCTCCAGAAGTGCTGGCCCAGAAACCCTACAGCAAGGCTGTGGGATTG 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300 GAAGTCGGACAACATTCTGGTGTGGTCCCTTGACGTCAAGAGCACATCAACATCAAGCT 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  449 AAAGCCCGAAAACCTGCT----TTACCTTACCCCTGAAGAGAACTCTAAGATCATGAT 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360 ATCTGACTACGGGATTTTCGAGGCAGTCATTCCATGAGGGCGCCCTAGGCGTGGAGGGCAC 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              503 cachdachtnegrenerichadandgaacagaahdgearcancarcachdecrenegeade 562
                                                                                                                                                                                                                                                                                                             485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420 TCCTGGCTACCAGGCCCCCAGAGATCAGGCCTCGCATTGTATGATGAGAAGGTAGATAT 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480 GITCICCIAIGGAAIGGIGCICIACGAGIIGCIGICAGGACAGCGCCTGCACIGGGCCA 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             606 creercearceacercareaceradarariedricieradaraceeeeearrerardaada 665
                                                                                                                                                                         431
                                                                                                                                                                                                                                             300 GAAGTCGGACAACATTCTGGGTGTCCCTTGACGTCAAGGAGCACATCAACATCAAGCT 359
                                                                                                                                                                                                                                                                                                                                                                                         360 ATCTGACTACGGGATTTCGAGGCAGTCATTCCATGAGGGCGCCCTAGGCGTGGAGGGCAC 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                         486 cachdachtridencherichadandeaacagaandeencherenceachecongredeac 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     546 cccasicinacerescrecasaas erecresceas aaceeras aaceeras aaceeras es 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          389 ccaecadercrrerceccaercaarakcracareaeaaareecarcercacaeaeacrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240 CTACCAGATCGCCTCGGCCTGGCCTACCTGCACAAAAAAACATCATCTTGTGACCT
                                                                                                                                                                             372 ccaecacerencicoccacidaaaracereacaaaaracereacarecereacacere
                                                                                                                                                                                                                                                                                                                 432 AAAGCCCGAAAACCTGCT----TTACCTTACCCCTGAAGAGAACTCTAAGATCATGAT
                                                                                                     240 CTACCAGATCGCCTCGGGCCTGGCTACCTGCACAAAAAAACATCATCTTGTGACCT
                                     6; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   uery Match 2.5%; Score 54.2; DB 11; Length 1738; lest Local Similarity 49.9%; Pred. No. 7.9e-05; latches 168; Conservative 0; Mismatches 163; Indels 6;
   Pred. No. 7.4e-05;
0; Mismatches 163; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540 CCACCAGCTCCAGATTGCCAAGAAGCTGTCCAAGGGC 576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        666 AACGGAGTCTAAGCTTTTCGAGAAGATCAAGGAGGGC 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      equence 4, Application US/09935464 ublication No. US20030027153A1 ENERAL INFORMATION:
   est Local Similarity 49.9%;
atches 168; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA ORGANISM: Homo sapiens
```

Search completed: December 14, 2003, 06:55:23 Job time: 710 secs